DOCUMENT RESUME

ED 279 497 SE 047 762

AUTHOR Fox, Joan; And Others
TITLE Comprehensive Instructional Management System (CIMS). A Cyclical Mathematics Curriculum. Workbook Part 2. Experimental. Level 3.
INSTITUTION New York City Board of Education, Brooklyn, N.Y. Div. of Curriculum and Instruction.
REPORT NO Curric-03-2003-22; ISBN-88315-547-8
PUB DATE 86
NOTE 118p.; For Part 1 workbook, see SE 047 761; for teacher manuals, see SE 047 763-764.
AVAILABLE FROM New York City Board of Education, Curriculum Editorial and Production Unit, Office of Curriculum Development and Support, Room 613, 131 Livingston St., Brooklyn, NY 11201.
PUB TYPE Guides - Classroom Use - Materials (For Learner) (051)

EDRS PRICE MF01/PC05 Plus Postage.
DESCRIPTORS Drills (Practice); *Educational Objectives; *Elementary School Mathematics; Grade 3; *Instructional Materials; *Mathematics Curriculum; *Mathematics Instruction; Primary Education; Teacher Developed Materials; Workbooks
IDENTIFIERS New York City Board of Education

ABSTRACT

The activities in this workbook are designed to provide pupils with practice in mastering the performance objectives of the Comprehensive Instructional Management System in mathematics for Level 3, Part 2, in New York City schools. It follows the sequence of the teacher's manual, with the objective number listed on each page. Over 80 performance objectives are listed, followed by worksheets for pupils. (MNS)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

EXPERIMENTAL ★

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☒ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

I K Winter

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

ED279497

CIMS

COMPREHENSIVE INSTRUCTIONAL MANAGEMENT SYSTEM

A Cyclical Mathematics Curriculum

Workbook Part 2

NEW YORK CITY BOARD OF EDUCATION
OFFICE OF CURRICULUM DEVELOPMENT AND SUPPORT
DIVISION OF CURRICULUM & INSTRUCTION

ISBN No. 88315-547-8

Curric. No. 03-2003-22

SE 047 762

NEW YORK CITY BOARD OF EDUCATION

Robert F. Wagner, Jr., President
Irene Impellizzeri, Vice President

Gwendolyn C. Baker
Richard I. Beattie
Stephen R. Franse
James F. Regan
Edward L. Sadowsky

Nathan Quinones, Chancellor

Charles I. Schonhaut, Deputy Chancellor

Jerald Posman, Deputy Chancellor for Financial Affairs

Charlotte Frank, Executive Director
Division of Curriculum and Instruction

Morris Freedman, Deputy Executive Director
Pearl Warner, Deputy Executive Director

Copyright 1986 by the Board of Education of the City of New York

Application for permission to reprint any section of this material should be made to the Chancellor, 110 Livingston Street, Brooklyn, N.Y. 11201. Reprint of any section of this material should carry the line, "Reprinted from CIMS - Comprehensive Instructional Management System, A Cyclical Mathematics Curriculum by permission of the Board of Education of the City of New York."

Original cover design by Marvin Schneider

It is the policy of the New York City Board of Education not to discriminate on the basis of race, creed, national origin, age, handicapping condition, or sex in its educational programs, activities, and employment policies, as required by law. Inquiries regarding compliance with appropriate laws may be directed to Mercedes Nesfield, Director, Office of Equal Opportunity, 110 Livingston Street, Brooklyn, New York 11201; or to Mr. Charles Tejada, Director, Office of Civil Rights, Department of Education, 26 Federal Plaza, Room 33-130, New York, New York 10278.

ISBN No. 88315-547-8

Curric. No. 03-2003-22

Copies of this publication may be purchased from: the Curriculum Editorial and Production Unit of the Office of Curriculum Development and Support, Room 613, 131 Livingston Street, Brooklyn, N.Y. 11201. Checks should be made payable to "Sale of Syllabi."

See catalogue for price.

FOREWORD

The Comprehensive Instructional Management System (CIMS) is a unified mathematics curriculum for grades K-7. The curriculum is cyclical in design, and reflects the most recent New York City and New York State guidelines.

Utilizing the experience of our system's teachers, we have developed a teacher-designed curriculum that includes a rich selection of classroom-tested successful mathematics activities. The major goal of the CIMS mathematics project is to provide the classroom teacher with a well-structured, objective-based curriculum. All objectives are supported by a variety of strategies. Student mastery of these objectives is readily diagnosed through the system's testing component.

The curriculum format is structured to allow the teacher to determine the ability level of the students in the topic under study, and to permit the students to move forward at their individual rates. Each module of instruction provides the teacher with a set of related performance objectives. These objectives are supported by activities which probe and develop the students' readiness to undertake new skills and concepts. Further reinforcement is given to mastery of the objectives through accompanying student workbooks.

It is hoped that this curriculum will not only assist teachers in developing vital mathematics instruction, but will serve to expand and enrich students' mathematics skills.

Charlotte Frank

Charlotte Frank,
Executive Director
Division of Curriculum and Instruction

ACKNOWLEDGMENTS - 1986

The Comprehensive Instructional Management System (CIMS) was developed as a project of the Division of Curriculum and Instruction, Mrs. Charlotte Frank, Executive Director. Mr. Bernard Mecklowitz, Community School Superintendent CSD 1; Dr. Peter Negroni, Community School Superintendent CSD 12; Dr. Harvey Garner, Community School Superintendent CSD 18; Mr. Carlos Edwards, Community School Superintendent CSD 23, and Mr. Joseph Pacheco, Community School Superintendent CSD 32 supervised the overall development of the CIMS program within their respective districts.

Morris Freedman, Director of the Office of Curriculum Development and Support; Irwin Kaufman, Director of Technology, Assigned to the Chief Executive for Instruction; Gerald Elgarten, Director of Mathematics, 1984-85; Lorraine Largmann, Director of Mathematics 1985-86; Susan Zakaluk, Director of Mathematics; Marjorie McAllister, Director of Early Childhood Education; Kenneth Bates, Director of CIMS; Maria DeSalvio, Assistant Director of Mathematics; Arthur Flug and Doreen Genkin, Assistant Directors of CIMS and Gene Menchini, Assistant to the Director for Systems Planning and Coordination, ODPC provided overall supervision of the project.

DIVISION OF SPECIAL EDUCATION

Overall supervision of curriculum in addressing those students with special needs was coordinated by Edward M. Sermier, Chief Administrator, Division of Special Education.

Gloria Cole, Director of Office of Program Development; Lorelle Lawson, Administrator, Curriculum Development Unit of the Office of Program Development and Roslyn Persky, Deputy Assistant Administrator to the Director of Office of Program Development, Special Education provided guidance and support in addressing these special needs.

PRINCIPAL WRITERS

The principal writers responsible for planning the scope, sequence, and engaging in the necessary research in the revision of the modules were:

Joan Fox, CIMS Sr. Curriculum Leader
Constance Goldsby, CIMS Sr. Curriculum Leader
Andrea Raskin, CIMS Sr. Curriculum Leader
Stephanie Thier, CIMS Curriculum Leader
Howard Wholl, CIMS Curriculum Leader

CIMS CURRICULUM DEVELOPERS/EDITORS

Judi Aronson	Spec. Ed. Staff Dev.	Lenore M. Messina	CSD 32 P.S. 75K
Marilyn Bell	CSD 6 Elem. Math Coord.	Selma Mitlitsky	CSD 18 Math Coord.
Abraham Butensky	CSD 23 P.S. 165K	Joseph Porzio	CSD 19 Asst. Dir. Math.
Kenneth Dallow	CSD 19 Staff Dev.	Rochelle Watnick	CSD 27 P.S. 197Q
Laura Lederman	CSD 26 J.H.S. 158Q	Roslynn Wiesenfeld	CSD 32 P.S. 145K

ILLUSTRATORS

Anita Janosova	H.S. Fine Arts	Ellen Evjen	J.H.S. Fine Arts
		Gioia Venezia	H.S. Fine Arts

PRODUCTION

Alaire Mitchell, Unit Head, Curriculum Editorial Unit
Maureen Maguire, Production Coordinator, Curriculum Editorial Unit
Dorothy C. Johnson, Office Associate, CIMS
Rosa Martin, Office Aide
Maria Elena Falcon, Office Aide

ACKNOWLEDGMENTS - 1985

The Comprehensive Instructional Management System (CIMS) was developed as a project of the Division of Curriculum and Instruction, Charlotte Frank, Executive Director. Mr. Bernard Mecklowitz, Community School Superintendent CSD 1; Dr. Peter Negroni, Community School Superintendent CSD 12; Dr. Harvey Garner, Community School Superintendent CSD 18; Carlos Edwards, Community School Superintendent CSD 23, and Joseph Pacheco, Community School Superintendent CSD 32 supervised the overall development of the CIMS program within their respective districts.

Morris Freedman, Director of the Office of Curriculum Development and Support; Irwin Kaufman, Director of Technology, Assigned to the Chief Executive for Instruction; Gerald Elgarten, Director of Mathematics, 1984-85; Lorraine Largmann, Director of Mathematics (Interim Acting); Marjorie McAllister, Director of Early Childhood Education; Kenneth Bates, Director of CIMS; Maria DeSalvio, Assistant Director of Mathematics; Arthur Flug and Doreen Genkin, Assistant Directors of CIMS and Gene Menchini, Assistant to the Director for Systems Planning and Coordination, ODPC provided overall supervision of the project.

DIVISION OF SPECIAL EDUCATION

Overall supervision of curriculum in addressing those students with special needs was coordinated by Edward M. Sermier, Chief Administrator, Division of Special Education.

Gloria Cole, Director of Office of Program Development; Lorelle Lawson, Administrator, Curriculum Development Unit of the Office of Program Development and Roslyn Persky, Deputy Assistant Administrator to the Director of Office of Program Development, Special Education provided guidance and support in addressing these special needs.

PRINCIPAL WRITERS

The principal writers responsible for planning the scope, sequence and engaging in the necessary research in revising of the modules were:

Judith Fein, CIMS Curriculum Leader
Joan Fox, CIMS Curriculum Leader
Constance Goldsby, CIMS Curriculum Leader
Andrea Raskin, CIMS Curriculum Leader

CIMS CURRICULUM DEVELOPERS

Sara Jane Bass	H.S. Mathematics	Joseph Porzio	CSD 19 Staff Dev.
Abraham Butensky	CSD 23 P.S. 165K	Roslynn Wiesenfeld	CSD 32 P.S. 145K
Merle Glass	CSD 18 P.S. 219K	Bernice Zuckerman	CSD 19 Staff Dev.
Sherri Heitner	Special Ed. CSD 4	Frederick Zwibel	Sp. Ed. Bklyn East
Lenore M. Messina	CSD 32 Asst. Math. Supv. I.A.		

EDITORS

Wallace Dimson	CSD 23 Math Coord.	Fred Remer	CSD 6 Mathematics Dir.
Aurora Larocca	CSD 32 Math. Coord.	Mary Teshara	CSD 12 Math. Coord.
Laura Lederman	CSD 26 J.H.S. 158Q	Rochelle Watnick	CSD 27 P.S. 197Q
Selma Mitlitsky	CSD 18 Math. Coord.	Stewart Weiner	CSD 1 Math. Coord.

ILLUSTRATORS

Kathleen Asvestas	CSD 15 P.S. 321K	Anita Woest	H.S. Fine Arts
Charles Flisser	CSD 11 P.S. 105X	Tom Wright	Graphic Artist
Gioia Venezia	Graphic Artist	Catherine Nunn	Graphic Artist

PRODUCTION

Alaire Mitchell, Unit Head, Curriculum Editorial Unit
Maureen Maguire, Production Coordinator, Curriculum Editorial Unit
Dorothy C. Johnson, Office Associate, CIMS

ACKNOWLEDGMENTS - 1984

The Comprehensive Instructional Management System (CIMS) was developed as a project of the Division of Curriculum and Instruction, Charlotte Frank, Executive Director. Dr. Peter Negroni, Community School Superintendent CSD 12; Dr. Harvey Garner, Community School Superintendent CSD 18; Carlos Edwards, Community School Superintendent CSD 23, and Joseph Pacheco, Community School Superintendent CSD 32 supervised the overall development of the CIMS program within their respective districts.

Morris Freedman, Director of the Office of Curriculum Development and Support; Irwin Kaufman, Director of Technology, Assigned to the Chief Executive for Instruction; Gerald Elgarten, Director of Mathematics (Interim Acting); Marjorie McAllister, Director of Early Childhood Education; Kenneth Bates, Director of CIMS; Maria DeSalvio, Assistant Director of Mathematics; Arthur Flug and Doreen Genkin, Assistant Directors of CIMS and Gene Menchini, Assistant to the Director for Systems Planning and Coordination, ODPC provided overall supervision of the project.

DIVISION OF SPECIAL EDUCATION

Overall supervision of curriculum in addressing those students with special needs was coordinated by Edward M. Sermier, Chief Administrator, Division of Special Education.

Gloria Cole, Director of Office of Program Development; Lorelle Lawson, Administrator, Curriculum Development Unit of the Office of Program Development and Geraldine Silver and Susan Wieder, Special Education Coordinators provided guidance and support in addressing these special needs.

PRINCIPAL WRITERS

The principal writers responsible for planning the scope, sequence and engaging in the necessary research in revising of the modules were:

Sara Jane Bass, CIMS Curriculum Leader
Judith Fein, CIMS Curriculum Leader
Rochelle Watnick, CIMS Curriculum Leader

CIMS CURRICULUM DEVELOPERS

Michael Abraskin	CSD 18 J.H.S. 68K	Lenore M. Messina	CSD 32 Biling. Coord.
Seymour Bashkowitz	CSD 18 J.H.S. 211K	Selma Mitlitsky	CSD 18 Math Coord.
Bonnie Breslauer	CSD 18 P.S. 114K	Edythe Ogin	CSD 19 I.S. 171K
Bernice Buchalter	CSD 18 P.S. 233K	Joseph Porzio	CSD 19 Staff Dev.
Abraham Butensky	CSD 23 P.S. 165K	Rosalyn Resnick	CSD 18 P.S. 233K
Merle Glass	CSD 18 P.S. 219K	Barbara Rodgers	CSD 18 P.S. 233K
Sheldon Haas	CSD 12 I.S. 116X	Blanche Solomon	CSD 32 P.S. 299K
Jeffrey Joyce	CSD 15 I.S. 88K	Martin L. Spiro	CSD 19I.S. 302K
Felice Karmin	CSD 32 P.S. 299K	Diane Taros	CSD 32 P.75K
Mark Lehrer	CSD 12 I.S. 158K	Mary Ann Wasserman	CSD 1 P.S. 110M
Susan Margulies	H.S. Mathematics	Bernice Zuckerman	CSD 19 Staff Dev.

ILLUSTRATORS

Paula Blanes, CSD 15 P.S. 39K
Charles Flisser, CSD 11 P.S. 105X
Anita Woest, H.S. Fine Arts

EDITORS

Jack Cohen, Assistant Principal/Supervision, Mathematics,
Theodore Roosevelt High School
Laura Lederman, CSD 26 J.H.S. 158Q
Virginia Pero, CSD 18 J.H.S. 211K, Special Education
Fred Remer, CSD 6, Mathematics Director
Randolph Ross, Principal, Newtown High School

PRODUCTION

Alaire Mitchell, Unit Head, Curriculum Editorial Unit
Maureen Maguire, Production Coordinator, Curriculum Editorial Unit
Dorothy Johnson, Office Associate, CIMS

CIMS CURRICULUM DEVELOPERS

Michael Abraskin	CSD 18 J.H.S. 68K	Lenore M. Messina	CSD 32 Biling. Coord.
Seymour Bashkowitz	CSD 18 J.H.S. 211K	Selma Mitlitsky	CSD 18 Math Coord.
Bonnie Breslauer	CSD 18 P.S. 114K	Edythe Ogin	CSD 19 I.S. 171K
Bernice Buchalter	CSD 18 P.S. 233K	Joseph Porzio	CSD 19 Staff Dev.
Abraham Butensky	CSD 23 P.S. 165K	Rosalyn Resnick	CSD 18 P.S. 233K
Merle Glass	CSD 18 P.S. 219K	Barbara Rodgers	CSD 18 P.S. 233K
Sheldon Haas	CSD 12 I.S. 116X	Blanche Solomon	CSD 32 P.S. 299K
Jeffrey Joyce	CSD 15 I.S. 88K	Martin L. Spiro	CSD 19I.S. 302K
Felice Karmin	CSD 32 P.S. 299K	Diane Taros	CSD 32 P.75K
Mark Lehrer	CSD 12 I.S. 158K	Mary Ann Wasserman	CSD 1 P.S. 110M
Susan Margulies	H.S. Mathematics	Bernice Zuckerman	CSD 19 Staff Dev.

ILLUSTRATORS

Paula Blanes, CSD 15 P.S. 39K

Charles Flisser, CSD 11 P.S. 105X

Anita Johnson, H.S. Fine Arts

EDITORS

Jack Cohen, Assistant Principal/Supervision, Mathematics,
Theodore Roosevelt High School

Laura Lederman, CSD 26 J.H.S. 158Q

Virginia Pero, CSD 18 J.H.S. 211K, Special Education

Fred Remer, CSD 6, Mathematics Director

Randolph Ross, Principal, Newtown High School

PRODUCTION

Alaire Mitchell, Unit Head, Curriculum Editorial Unit

Maureen Maguire, Production Coordinator, Curriculum Editorial Unit

Dorothy Johnson, Office Associate, CIMS

COMMUNITY SCHOOL DISTRICT 23

Wallace Dimson,	District Mathematics Coordinator
Gloria Allen	P.S. 327K
Marshall Belson	P.S. 183K
Abraham Butensky	P.S. 165K
Janice Ellenbogen	P.S. 298K
Ruth Fennell	P.S. 298K
Gladys H. Galamison	P.S. 156K
Bruce Landau	P.S. 327K
George McMullen	P.S. 183K
Carmella Murden	J.H.S 275K
Martha Hilinski-Pepe	P.S. 327K
Rochelle Sanders	P.S. 327K
Gary Wexler	P.S. 41K
Priscilla A. Williams	I.S. 271K
Frederick Zwibel	P.S. 184K

COMMUNITY SCHOOL DISTRICT 32

Aurora Larocca,	District Mathematics Coordinator
Pedro J. Colon	J.H.S. 111K
Dorothy A. Conroy	P.S. 116K
Joan Fox	P.S. 116K
Steven Ganzell	I.S. 291K
Akhtar A. Khan	I.S. 291K
Lenore Marie Messina	P.S. 151K
Joanne Narisi	P.S. 299K
George Silverglad	P.S. 274K
Norma Warmund	P.S. 45K
Stephen Elliot Weiss	P.S. 274K
Martin Weissman	P.S. 384K

CITYWIDE CURRICULUM DEVELOPERS

Judy Z. Cohen	Corr. Math. N.P.S.	Carmen B. Matthews	CSD 3 J.H.S. 88M
Nancy R. Coleman	CSD 19 Staff Dev.	Edythe Ogin	CSD 19 I.S. 171K
Carl Conetta	Special Ed. Bronx	Joseph A. Porzio	CSD 19 Staff Dev.
Gerri T. Dunne	Corr. Math. N.P.S.	Fred Remer	CSD 6 Math Coord.
Meryl Glass	CSD 22 P.S. 139K	Jon Rothfeld	CSD 19 Staff Dev.
David A. Gold	CSD 19 Staff Dev.	Marvin Schneider	Edward R. Murrow H.S.
Stuart Goldberg	CSD 19 Staff Dev.	Leila Schwartz	Corr. Math. N.P.S.
Michelle Greenberg	CSD 28 P.S. 160Q	Angelina Spero	Corr. Math. N.P.S.
Joyce Jalowski	Corr. Math. N.P.S.	Martin L. Spiro	CSD 19 I.S. 302
Margaret Jordan	Corr. Math. N.P.S.	Bernice Staub	Corr. Math. N.P.S.
Jeffrey Joyce	CSD 15 I.S. 88K	Madeline Sussman	CSD 1 P.S. 142M
Nicholas C. Leo	Corr. Math. N.P.S.	Robert B. Weiss	CSD 28 J.H.S. 190Q
Elaine J. Kaplan	CSD 28 J.H.S. 157Q	Bernice Zuckerman	CSD 19 Staff Dev.
Joan Mahon	CSD 19 Staff Dev.		

CITYWIDE CURRICULUM ILLUSTRATORS

Joyce Abramowitz	CSD 26 J.H.S. 158Q	Edward Kissane	Beach Channel H.S.
Amy Appleman	CSD 22 P.S. 194K	Susan M. Seidler	Corr. Math. N.P.S.
Paula J. Blanes	CSD 15 P.S. 39K	Dolores Soldo	Special Ed. Brooklyn
Nina Cucchiari	Special Ed. Bronx	Sandy Susser	Special Ed. Bronx
Charles B. Flisser	Special Ed. Bronx		

CITYWIDE CURRICULUM EDITORS

Meryl Fenster	CSD 30 P.S. 171K	Laura J. Lederman	CSD 26 J.H.S. 158Q
Robert Greenman	James Madison H.S.	Mary Newsom-King	CSD 8 J.H.S. 101X
Stephanie Lang-Goldsmith	Special Ed. Queens	Lorraine Wittman	CSD 25 P.S. 169Q

PRODUCTION STAFF

Anne Cohen, Education Analyst
Dorothy Johnson, Office Associate

To The Teacher:

The activities in the CIMS student workbook are designed to provide the pupils with practice in mastering the curriculum's performance objectives and follows the sequence of the CIMS teacher's manual. Each workbook activity page lists the corresponding performance objective number in the upper left hand corner. The activity page numbers are identical to those found in the CIMS teacher's manual.

To The Student:

This mathematics workbook will help you to practice many of the new ideas your teachers have presented. Each worksheet has examples of the material you have studied in your daily mathematics lesson. As you proceed through this workbook, you will notice that you have learned many skills and will be ready to move on to more difficult ones.

TABLE OF CONTENTS

LEVEL 3

P.O. NUMBER	PERFORMANCE OBJECTIVE DESCRIPTION	PAGE NUMBER
3.04.05.01 -.02, &.04	Multiply three (3) by the numbers one (1) through (9), using vertical and horizontal formats; multply four (4) by the numbers one (1) through nine (9), using vertical and horizontal formats; solve word problems related to skills learned in this module.....	45a
3.04.05.01 -.03	Multiply three (3) by the numbers one (1) through (9), using vertical and horizontal formats; multiply four (4) by the numbers one (1) through nine (9), using vertical and horizontal formats; apply the commutative property of multiplication tothe 3 and 4 times tables.....	45b
3.05.03.01	Divide by 3 for dividends up to 27 without a remainder.....	46a
3.05.03.01 -.03	Divide by 3 for dividends up to 27 without a remainder; divide by 4 for dividends up to 36 without a remainder; solve word problems related to skills learned in this module.....	46b
3.05.03.03	Solve word problems related to skills learned in this module.....	46c
Units 38,39	**SHARPENING YOUR SKILLS**.....	46d
3.06.02.01	Separate a number of objects into non-unit fractional parts.....	47a
3.06.02.02	Solve word problems related to skills learned in this module.....	47b

TABLE OF CONTENTS

LEVEL 3

P.O. NUMBER	PERFORMANCE OBJECTIVE DESCRIPTION	PAGE NUMBER
3.10.07.01 -.02	Show equivalent values of dollar bill; use combinations of coins to make change through the value of one dollar	48a
3.10.07.03	Recognize and identify a five dollar bill and its equivalent values	48b
3.10.07.04	Recognize and identify a ten dollar bill and its equivalent values	48c
Units 40,41	**SHARPENING YOUR SKILLS**	48d
3.09.03.01 -.02	Recognize open and closed curves; recognize simple closed curves and complex closed curves	49a
3.13.02.01	Locate pertinent information within a chart/table to solve problems	50a
3.13.02.02	Locate pertinent information within a paragraph to solve problems	50b
3.06.03.01 °.03	Add fractions having like denominators in vertical and horizontal formats; solve story problems related to skills learned in this module	51a
3.06.03.01 -.03	Add fractions having like denomiators in vertical and horizontal formats; subtract fractions having like denominators in horizontal and vertical formats; solve story problems related to skills learned in this module	51b
Units 42,43	**SHARPENING YOUR SKILLS**	51c

TABLE OF CONTENTS

LEVEL 3

P.O. NUMBER	PERFORMANCE OBJECTIVE DESCRIPTION	PAGE NUMBER
3.07.02.01 &.03	Add decimals in horizontal and vertical formats without regrouping (exchange); solve word problems related to skills learned in this module	52a
3.07.02.02 -.03	Subtract decimals in horizontal and vertical formats without regrouping (exchange); solve word problems related to skills learned in this module	52b
3.12.02.01 -.02	Predict the outcomes of equally likely events, and compare the results with the predictions; predict the outcome of unequally likely events	53a
3.04.06.01 &.04	Multiply six (6) by the numbers one (1) through nine (9) using vertical and horizontal formats; solve word problems related to skills learned in this module	54a
3.04.06.02 &.04	Multiply seven (7) by the numbers one (1) through nine (9) using vertical and horizontal formats; solve word problems related to skills learned in this module	54b
3.04.06.01 -.03	Multiply six (6) by the numbers one (1) through nine (9) using vertical and horizontal formats; multiply seven (7) by the numbers one (1) through nine (9) using vertical and horizontal formats; apply the commutative property of multiplication to the six (6) and seven (7) times table	54c
Units 44,45, 46,47	**SHARPENING YOUR SKILLS**	54d
3.05.04.01 &.03	Divide by 6 for dividends to 54 without a remainder; solve word problems related to skills learned in this module	55a

TABLE OF CONTENTS

LEVEL 3

P.O. NUMBER	PERFORMANCE OBJECTIVE DESCRIPTION	PAGE NUMBER
3.05.04.02 -.03	Divide by 7 for dividends to 63 without a remainder; solve word problems related to skills learned in this module	55b
3.09.04.01	Define and identify a sphere, cube, cone, and cylinder	56a
3.09.04.02	Identify the vertex, edge, line segment, angle, and face of a solid figure	56b
3.09.05.01 -.02	Give directions for getting from one place to another on a grid using horizontal and vertical paths; identify points on a grid by using ordered pairs	57a
3.04.07.01 &.04	Multiply eight (8) by the numbers one (1) through nine (9) using vertical and horizontal formats; solve word problems related to skills learned in this module	58a
3.04.07.01, .02,.04	Multiply eight (8) by the numbers one (1) through nine (9) using vertical and horizontal formats; multiply nine (9) by the numbers one (1) through nine (9) using vertical and horizontal formats; solve word problems related to skills learned in this module	58b
3.04.07.03	Apply the commutative property of multiplication to the eight and nine times tables	58c
3.05.05.01 &.03	Divide by 8 for dividends to 72 without a remainder; solve word problems related to skills learned in this module	59a

TABLE OF CONTENTS

LEVEL 3

P.O. NUMBER	PERFORMANCE OBJECTIVE DESCRIPTION	PAGE NUMBER
3.05.05.02 -.03	Divide by 9 for dividends to 81 without a remainder; solve word problems related to skills learned in this module	59b
3.11.02.01	Read and write addition and multiplication inequalities	60a
3.11.02.02	Solve inequalities involving addition and multiplication and write solution sets	60b
Units 51, 52,53	**SHARPENING YOUR SKILLS**	60c
3.04.08.01 -.02	Multiply ten (10) by the numbers one (1) through nine (9) using vertical and horizontal formats; apply the commutative property of multiplication to the ten times table	62a
3.04.08.03 -.04	Apply the associative property of multiplication to the ten times table; use the distributive property of multiplication over addition with multiples of ten which are less than 100, by 2 through 9	62b
3.04.08.05	Multiply multiples of ten by 2 through 9	62c
3.13.03.01	Complete a numerical pattern and state the rule for the pattern	63a
3.13.03.02	Arrange numbers to form a pattern and state the rule for the pattern	63b
Units 54,55	**SHARPENING YOUR SKILLS**	63c

TABLE OF CONTENTS

LEVEL 3

P.O. NUMBER	PERFORMANCE OBJECTIVE DESCRIPTION	PAGE NUMBER
3.04.09.01	Fill in a multiplication table from 0 x 0 through 10 x 10	64a
3.04.09.02	Find patterns in multiplication tables from 0 x 0 through 10 x 10	64b
3.12.03.01	List and count the number of possible arrangements in a set of objects	65a
3.12.03.02	Make a tree diagram to display combinations of given data	65b
3.04.10.01 °.03	Multiply multiples of 100 by a 1-digit number without regrouping (exchange); solve word problems related to skills learned in this module	66a
3.04.10.02 -.03	Multiply 2- and 3-digit numbers by numbers less than 10 in vertical and horizontal formats without regrouping (exchange); solve word problems related to skills learned in this module	66b
Units 56,57, 58	**SHARPENING YOUR SKILLS**	66c
3.05.06.01 °.03	Divide a 2-digit dividend by a 1-digit divisor without regrouping (exchange) or a remainder; solve word problems related to skills learned in this module	67a
3.05.06.02 -.03	Divide a 3-digit dividend by a 1-digit divisor without regrouping (exchange) or a remainder; solve word problems related to skills learned in this module	67b
3.05.06.03	Solve word problems related to skills learned in this module	67c

TABLE OF CONTENTS

LEVEL 3

P.O. NUMBER	PERFORMANCE OBJECTIVE DESCRIPTION	PAGE NUMBER
3.02.06.01 -.02,&.06	Add two 4-digit numbers without regrouping (exchange) and check; add two 4-digit numbers with one regrouping (exchange) and check; solve word problems related to skills learned in this module	69a
3.02.06.02 -.04,&.06	Add two 4-digit numbers with one regrouping (exchange) and check; add two 4-digit numbers with two regroupings (exchanges) and check; add two 4-digit numbers with three regroupings (exchanges) and check; solve word problems related to skills learned in this module	69b
3.02.06.05 -.06	Rewrite a 4-digit horizontal addition example in vertical format with regrouping (exchange), add and check; solve word problems related to skills learned in this module	69c
Units 59,60	**SHARPENING YOUR SKILLS**	69d
3.03.06.01 -.02,.03	Subtract two 4-digit numbers without regrouping (exchange) and check; subtract two 4-digit numbers with one regrouping (exchange) and check; subtract two 4-digit numbers with two regroupings (exchanges) and check	71a
3.03.06.01 -.02,.03	Subtract two 4-digit numbers without regrouping (exchange) and check; subtract two 4-digit numbers with one regrouping (exchange) and check; subtract two 4-digit numbers with two regroupings (exchanges) and check	71b

TABLE OF CONTENTS

LEVEL 3

P.O. NUMBER	PERFORMANCE OBJECTIVE DESCRIPTION	PAGE NUMBER
3.03.06.04 -.06	Subtract two 4-digit numbers with three regroupings (exchanges) and check; compute subtraction examples having minuends with multiples of 100 or 1,000 and check; solve word problems related to skills in this module	71c
3.03.06.06	Solve word problems related to skills learned in this module	71d
3.10.08.01 -.02	Identify a millimeter as a tenth of a centimeter and use the abbreviation mm; identify equivalent metric units of length	72a
Units 61,62	**SHARPENING YOUR SKILLS**	72b
3.09.06.01 -.03	Recognize and define a polygon as a simple closed curve with line segments called sides; recognize and define a quadrilateral as a 4-sided polygon; define perimeter of a quadrilateral as the sum of the lengths of its sides	73a
3.13.04.01 -.02	Use representative materials to help solve a problem; create charts/tables to help solve problems	74a
3.13.04.03	Develop questions based upon information obtained from a model/chart	74b
Units 63,64	**SHARPENING YOUR SKILLS**	74c
3.01.07.01	Use an ordinal number to name a position in a row up to 99	75a
3.01.07.02 -.03	Identify the ordinal position of each object in a row or series up to 500 objects; write cardinal numbers with corresponding ordinal numbers	75b

TABLE OF CONTENTS

LEVEL 3

P.O. NUMBER	PERFORMANCE OBJECTIVE DESCRIPTION	PAGE NUMBER
3.01.07.03	Write cardinal numbers with corresponding ordinal numbers.....	75c
3.14.03.02	Identify the relationships among a cup, a pint and a quart.....	76a
3.01.08.01	Identify the negative (-) sign for numbers and use negative numbers in real life situations.....	77a
3.01.08.02	Locate the points for the negative numbers on a number line.....	77b
Units 65,66 67	**SHARPENING YOURS SKILLS**.....	77c
3.01.09.01	Identify and write Roman numerals from XIII through XXXIX (13 through 39).....	78a
3.01.09.02	Solve word problems related to skills learned in this module.....	78b
3.10.09.01 -.02	Identify and compare the millileter (mℓ) to the liter (ℓ); identify equivalent metric units of capacity.....	79a
3.04.11.01 &.03	Multiply a 2- or 3-digit number by a 1-digit number with regrouping (exchange) using the partial product method; solve word problems related to skills learned in this module.....	80a
3.04.11.02 &.03	Multiply a 2- or 3-digit number by a 1-digit number with regrouping (exchange) using the short multiplication algorithm; solve word problems related to skills learned in this module.....	80b

TABLE OF CONTENTS

LEVEL 3

P.O. NUMBER	PERFORMANCE OBJECTIVE DESCRIPTION	PAGE NUMBER
3.04.11.03	Solve word problems related to skills learned in this module	80c
Units 68,69, 70	**SHARPENING YOUR SKILLS**	80d
3.05.07.01 -.02	Recognize a remainder as that which is "left over" in division; solve word problems related to skills learned in this module	81a
Units 70,71	**SHARPENING YOUR SKILLS**	82b
3.06.04.01 &.02	Define and identify an improper fraction; define and identify a mixed number	82a
3.06.04.01 &.02	Define and identify an improper fraction; define and identify a mixed number	82b
3.06.04.03	Change an improper fraction to a mixed number or a whole number	82c
3.06.04.04	Change a mixed number or a whole number to an improper fraction	82d
3.06.05.01	Write a ratio to represent a relationship between two quantities	83a
3.06.05.02	Solve word problems related to skills learned in this module	83b
3.10.10.01 -.03	Identify uniform speed as rate; identify time as the number of hours traveled; solve word problems related to skills learned in this module	84a
Units 73, 74	**SHARPENING YOUR SKILLS**	84b

P.O. 3.04.05.01,.02,&.04

NAME: _____ CLASS: _____ DATE: _____

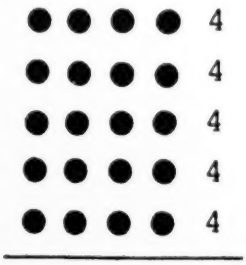
Complete each section.

a)

2 groups of 3 = 6

2 X 3 = 6

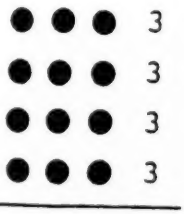
b)



☐ groups of 4 = 20

5 X 4 = 20

c)



☐ _____ = ___

___ X ___ = ___

Draw an array for each number sentence.

d) 2 x 4 = 8

e) 3 x 4 = 12

f) 5 x 3 = 15

Complete each number sentence.

4 x 3 = 12	6 x 3 = ☐	4 x 4 = ☐
5 x 4 = ☐	5 x 3 = ☐	7 x 4 = ☐
2 x 3 = ☐	3 x 4 = ☐	3 x 3 = ☐

Complete each algorithm.

3 x2 = 6	4 x3 = ☐	4 x5 = ☐	3 x7 = ☐	3 x8 = ☐

A tricycle has 3 wheels. How many wheels do 9 tricycles have?

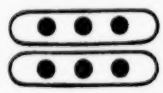
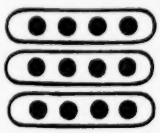
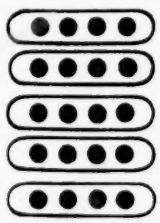
9 tricycles have _____.

P.O. 3.04.05.01 - .03

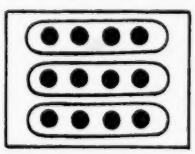
NAME: _____ CLASS: _____ DATE: _____

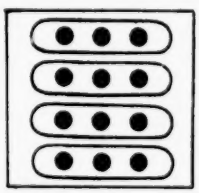
Follow the directions below.

Complete each box by writing the missing words or numbers.

a) 	3 + 3 = ☐	2 groups of 3.	2 x 3 = ☐	3 x 2 = ☐
b) 	4 + 4 + 4 = ☐	☐ groups of ___	3 x 4 = ☐	4 x 3 = ☐
c) 		☐ ___ of 4	___ x ___ = ___	4 x 5 = ☐

Which number sentence describes both pictures?





a) 3 + 3 + 3 + 3 = 12

b) 12 - 9 = 3

c) 12 - 4 = 8

d) 3 x 4 = 4 x 3

Complete each box by writing the missing numbers.

If 4 x 3 = 12, then 3 x 4 = ☐.

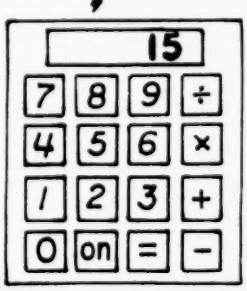
If 5 x 4 = 20, then 4 x 5 = ☐.

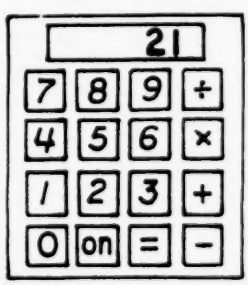
If 7 x 3 = ☐, then 3 x 7 = ☐.

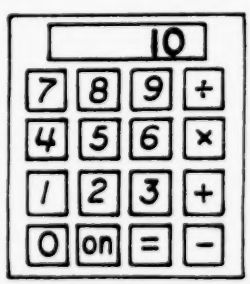
If 6 x 3 = ☐, then 3 x 6 = ☐.

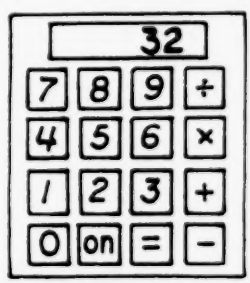
CHALLENGE!

Circle the digits you must press on the calculator to get the products in the window.









P.O. 3.05.03.01

NAME: _____ CLASS: _____ DATE: _____

Follow the directions below.

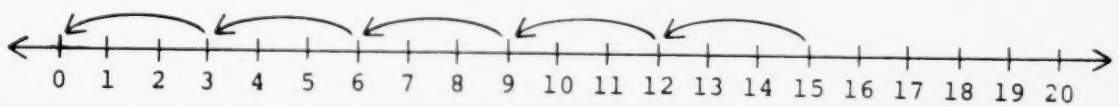
Divide by 3 to complete the chart.

	A	B	C	D	E	F	G	H
Dividend	21	15	6	12	18	24	9	3
Quotient	7							

Write and solve division algorithms for each of the above.

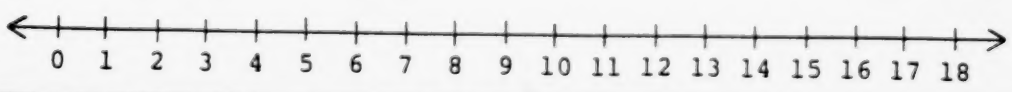
A	B	C	D
21 ÷ 3 = 7 $3\overline{)21}$	___ ÷ ___ = ___ $\overline{)\ \ }$	___ ÷ ___ = ___ $\overline{)\ \ }$	___ ÷ ___ = ___ $\overline{)\ \ }$
E	**F**	**G**	**H**
___ ÷ ___ = ___ $\overline{)\ \ }$	___ ÷ ___ = ___ $\overline{)\ \ }$	___ ÷ ___ = ___ $\overline{)\ \ }$	___ ÷ ___ = ___ $\overline{)\ \ }$

Draw a ring around the number sentence which represents the number line.



6 + 7 = 13 15 ÷ 3 = 5 12 ÷ 3 = 4

Show jumps on the number line which represent 12 ÷ 3 = 4.



P.O. 3.05.03.01 - .03

NAME: _____ CLASS: _____ DATE: _____

Follow the directions below.

Complete each sentence. Then write a number sentence.

There are 5 fours in 20.	20	÷	4	=	5
There are ___ fours in 16.	___	÷	___	=	___
There are ___ fours in 24.	___	÷	___	=	___
There are ___ fours in 8.	___	÷	___	=	___
There are ___ fours in 36.	___	÷	___	=	___
There is ___ four in 4.	___	÷	___	=	___
There are ___ fours in 12.	___	÷	___	=	___
There are ___ fours in 28.	___	÷	___	=	___
There are ___ fours in 32.	___	÷	___	=	___

Divide and check.

$3\overline{)12}$ 4 check $3 \times 4 = 12$

$4\overline{)16}$ ___ check

$3\overline{)18}$ ___ check

$3\overline{)36}$ ___ check

$4\overline{)24}$ ___ check

$4\overline{)8}$ ___ check

$4\overline{)20}$ ___ check

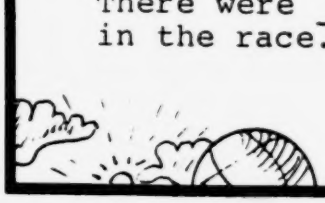
$3\overline{)9}$ ___ check

$3\overline{)15}$ ___ check

Read the story and solve each problem.

21 people were in a spring balloon contest. Each balloon carried 3 people. How many balloons were in the race?

There were _____ balloons in the race.



36 people attended the party given for the people in the balloon race. If 4 people shared a whole chicken, how many chickens were needed for the party?

There were _____ chickens needed for the party.

P.O. 3.05.03.03

NAME: _____ CLASS: _____ DATE: _____

Solve the problems below.

1. 32 students from Ms. Chin's class went on a winter camping trip. If 4 students shared a tent, how many tents were needed? _____ tents were needed.	solve
2. 18 students will prepare the meals on Saturday and on Sunday. If 3 students prepare each meal, how many meals will be prepared? _____ meals will be prepared.	solve
3. In an ice skating race there were 15 trips around the lake. If 3 trips around were made by each camper, how many campers participated? _____ campers participated.	solve
4. The campers made pine cone picture frames. They used a total of 36 pine cones to make 4 frames. How many pine cones were used for each frame? _____ pine cones were used for each frame.	solve
5. 24 students made posters which said, PREVENT FOREST FIRES. If 3 students worked on each poster, how many posters were made? _____ posters were made.	solve

SHARPENING YOUR SKILLS

Units 38,39

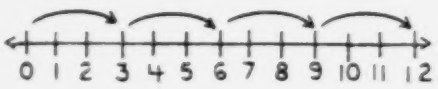
Name: _____ **Class:** _____ Date: _____

1. This array shows _____.

. . .
. . .
. . .
. . .

(a) 5 + 3 = 8
(b) 4 x 3 = 12
(c) 15 - 3 = 12
(d) 5 x 3 = 15

2. This number line shows _____.



(e) 3 + 9 = 12
(f) 4 x 3 = 12
(g) 12 ÷ 3 = 4
(h) 12 - 12 = 0

3. If 4 x 6 = 24 then 6 x ☐ = 24

4. If 8 x 3 = 24 then 3 x ☐ = 24

5. If 6 x ☐ = 18 then 3 x 6 = 18

6. If 9 x 3 = 27 then ☐ x 9 = 27

7. Another way to show 32 ÷ 4 is _____.

(a) 32 - 4
(b) 8 x 3
(c) $4\overline{)8}$
(d) $4\overline{)32}$

8. 7 children visited Riis Park in Queens. Each child brought 3 dollars. How much money did they have in all?

They had _____ dollars in all.

9. The children bought ice cream at a stand on the boardwalk. They received 32 pennies in change. If 4 children shared the pennies equally, how many pennies will each child get?

Each child will get _____ pennies.

10. 5 children each went swimming in the Atlantic Ocean 3 times during the day. How many swims did they have in all?

They had _____ swims in all.

P.O. 3.06.02.01

NAME: _____ CLASS: _____ DATE: _____

Follow the directions below.

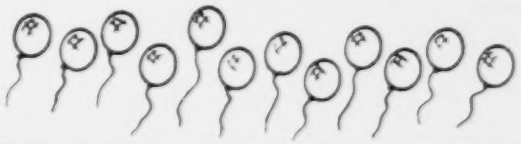
This basket will hold $\frac{2}{3}$ of the strawberries.

Draw a ring around $\frac{2}{3}$ of the strawberries.

$\frac{2}{3}$ of 6 = ☐

Paul will buy $\frac{3}{4}$ of the balloons.

Draw a ring around $\frac{3}{4}$ of the balloons.



$\frac{3}{4}$ of 12 = ☐

The pencil cup will hold $\frac{2}{3}$ of the pencils.

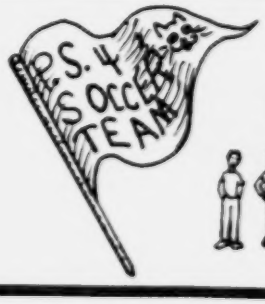
Draw a ring around $\frac{2}{3}$ of the pencils.

$\frac{2}{3}$ of 9 = ☐

The pitcher will hold the juice of $\frac{4}{5}$ of the oranges.

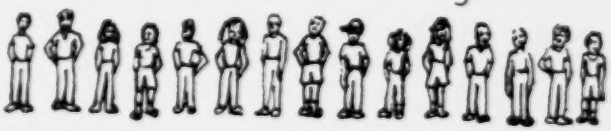
Draw a ring around $\frac{4}{5}$ of the oranges.

$\frac{4}{5}$ of 10 = ☐



$\frac{3}{5}$ of the students will join the team.

Draw a ring around $\frac{3}{5}$ of the students.



$\frac{3}{5}$ of 15 = ☐

P.O. 3.06.02.02

NAME: _____ CLASS: _____ DATE: _____

Solve the problems below.

1. The distance around Central Park is 6 miles. If Charles ran $\frac{2}{3}$ of the distance, how far did he run? Charles ran _____ miles.	**solve** $\frac{2}{3}$ of 6 = 4
2. Sandy baked 20 cupcakes for the picnic in the park. $\frac{3}{4}$ of them were chocolate. How many chocolate cupcakes did Sandy bake? Sandy baked _____ chocolate cupcakes.	**solve**
3. 24 children entered the 3-legged relay race. $\frac{2}{6}$ of them were boys. How many boys entered the race? _____ boys entered the race.	**solve**
4. 10 children wanted to rent rowboats. There were enough rowboats for only $\frac{2}{5}$ of the children. How many children went rowing? _____ children went rowing.	**solve**
Do you remember? 18 children rented bicycles built for 2. If 2 children shared each bicycle, how many bicycles did they rent? They rented _____ bicycles.	**solve**

P.O. 3.10.07.01 & .02

NAME: _____ CLASS: _____ DATE: _____

Follow the directions below.

Complete each line in the chart so the total value of the coins equals 1 dollar.

Coins Equal to $1.00				
half-dollars	quarters	dimes	nickels	pennies
1	1		2	
0	2	2		
0	0			
1	0			
		7		10
0	3			
			6	15

Solve the problems below.

1. Mrs. Greene's class went to the Museum of Natural History. Several students bought dinosaur figures, each costing 67¢. How much change did each student receive from a dollar?

   Each student received _____.

solve

2. The class had snacks at the Museum cafeteria. Maria bought an apple, a cookie, and milk for a total of 84¢. If she gave the cashier $1.00, how much change should she have gotten?

   She should have gotten _____ in change.

solve

3. After lunch Pete bought a postcard for 53¢. How much change did he receive from a $1.00 bill?

   He received _____.

solve

P.O. 3.10.07.03

NAME: _____ CLASS: _____ DATE: _____

Follow the directions below.

Solve the problems below.

1. Kevin will buy a model of the Empire State Building for $5.00. He has 3 one dollar bills and 4 quarters. How much more money does he need ?

   He needs _____ dollar more.

2. Bobby spent 3 dollars for a model Corvette. He gave the shop keeper a 5 dollar bill. Bobby received 1 dollar and several dimes in change.

   Bobby received 1 dollar and _____ dimes in change.

3. How can a cashier make 5 dollars change using bills only ?

   _____

   _____

Circle the amounts which show five dollars.

a. 4 one dollar bills, 8 dimes, 4 nickels
b. 4 one dollar bills, 4 quarters
c. 4 one dollar bills, 3 quarters, 2 nickels, 5 pennies
d. 4 one dollar bills, 2 quarters, 4 nickels, 5 pennies

CHALLENGE!

Imagine that you are the cashier at Marvin's Models. List the combinations of bills and coins you can make from a twenty dollar bill.

_____

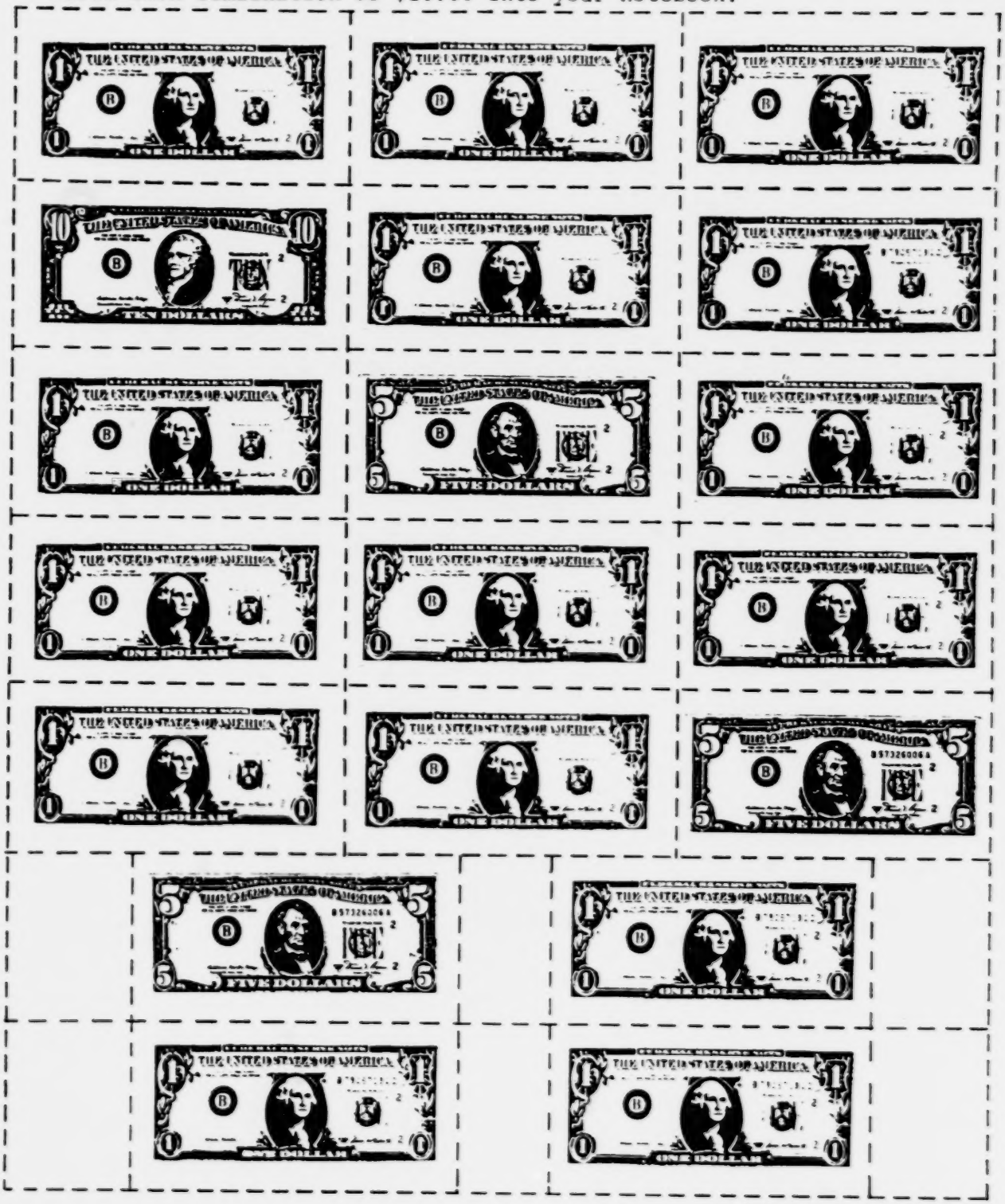
_____

_____

P.O. 3.10.07.04

NAME: _____ CLASS: _____ DATE: _____

Cut out the money along the perforated lines.
Show all the ways you can make $10.00.
Paste each combination of $10.00 into your notebook.



SHARPENING YOUR SKILLS

Units 40, 41

Name: _____ **Class:** _____ **Date:** _____

1. Which number sentence is represented by this array?

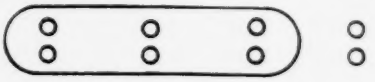
(a) $8 - 4 = 4$

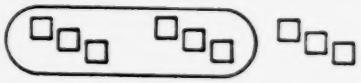
(b) $\frac{1}{3}$ of $15 = 5$

(c) $12 - 5 = 7$

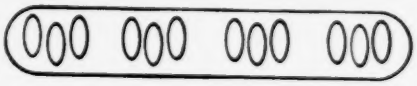
(d) $\frac{1}{3}$ of $12 = 4$

2. Which picture represents $\frac{3}{4}$ of 8?

(e) 

(f) 

(g)

(h) 

3. Shade $\frac{2}{5}$ of the apples.

4. Kevin spent 94¢. He gave the clerk $1.00. Which coins did he receive as change?

(a) 1 nickel, 1 penny

(b) 1 dime, 1 penny

(c) 1 quarter, 1 penny

(d) 4 pennies

5. Which group of coins is equal in value to $1.00?

(e) 3 quarters, 1 nickel

(f) 10 dimes

(g) 1 half-dollar, 1 nickel, 1 dime

(h) 10 nickels

6. Complete each sentence to make it true.

$10.00 equals 1 five dollar bill and _____.

$5.00 equals 2 one dollar bills and _____.

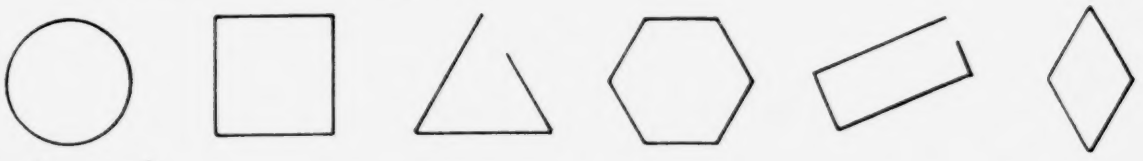
$1.00 equals 2 quarters and _____.

P.O. 3.09.03.01-.02

NAME: _____ CLASS: _____ DATE: _____

Follow the directions below.

Label each curve open or closed.

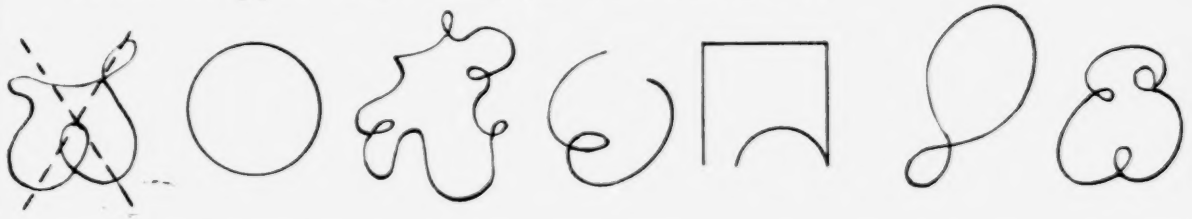


closed _____ _____ _____ _____ _____

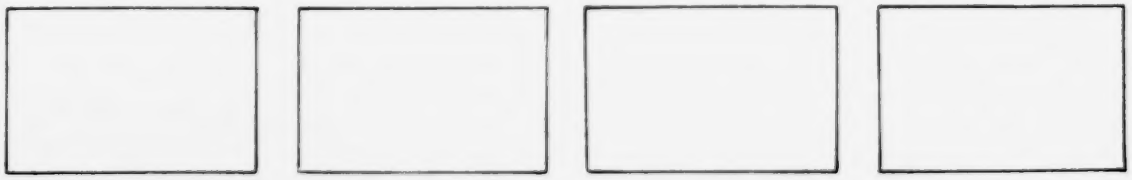
Draw some open curves.

Draw some closed curves.

Write an X on each complex closed curve.



Draw a complex closed curve in each box.



P.O. 3.13.02.01

NAME: _____ CLASS: _____ DATE: _____

Use the chart to answer the questions.

Five American Presidents	
President	Years in Office
Carter	1976 - 1980
Ford	1974 - 1976
Nixon	1968 - 1974
Johnson	1963 - 1968
Kennedy	1960 - 1963

1. For how many years was Jimmy Carter the President of the United States?

Jimmy Carter was president of the United States for 4 years.

2. How many years passed from the beginning of John Kennedy's term to the end of Richard Nixon's term?

3. Which president was in office for the greatest number of years?

4. Who was president for the least number of years?

5. Name three presidents whose years in office, taken together, total 15 years.

P.O. 3.13.02.02

NAME:_____ CLASS:_____ DATE:_____

Read the story. Answer the questions below in complete sentences.

Sue, Maryanne, Arthur, and Josh wrote a report about the continents of the Earth. Sue read 17 pages about Africa and 6 pages about Antarctica. Maryanne read 15 pages about Asia and 15 pages about Australia. Arthur read 28 pages about Europe. Josh read 14 pages about North America and 8 pages about South America. Their teacher read their report and gave them all A's.

1. Who read the fewest pages? _____

2. How many more pages were read about Europe than about North America? _____

3. About which continent were the fewest pages read? _____

4. How many pages did Sue, Maryanne, and Arthur read all together? _____

5. How many continents are there? _____

6. Who read a total of 30 pages? _____

P.O. 3.06.03.01 & .03

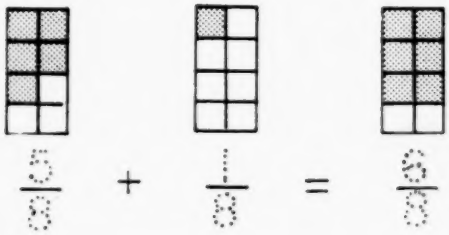
NAME: _____ CLASS: _____ DATE: _____

Complete the examples and solve the problems below.

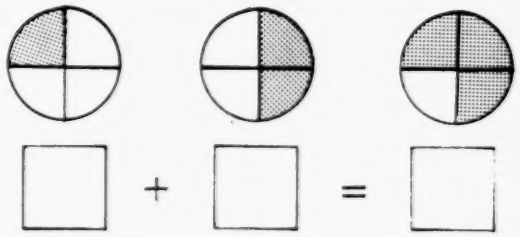
Use the words in the word box to complete the sentences.

numerator
denominator
sum

When adding fractions with a common [denominator], add the [ ]. Then write the [ ] over the [ ].



$\frac{5}{8} + \frac{1}{8} = \frac{6}{8}$



[ ] + [ ] = [ ]

$\begin{array}{r} \frac{1}{5} \\ +\ \frac{2}{5} \\ \hline \end{array}$ $\begin{array}{r} \frac{3}{8} \\ +\ \frac{2}{8} \\ \hline \end{array}$ $\begin{array}{r} \frac{1}{6} \\ +\ \frac{1}{6} \\ \hline \end{array}$ $\begin{array}{r} \frac{2}{4} \\ +\ \frac{1}{4} \\ \hline \end{array}$ $\begin{array}{r} \frac{2}{5} \\ +\ \frac{2}{5} \\ \hline \end{array}$ $\begin{array}{r} \frac{1}{3} \\ +\ \frac{1}{3} \\ \hline \end{array}$ $\begin{array}{r} \frac{6}{8} \\ +\ \frac{1}{8} \\ \hline \end{array}$

Use the picture to help you solve the problems.

Write a number story to show how much of the fence was painted. _____

_____

_____

How much of the fence still needs to be painted?

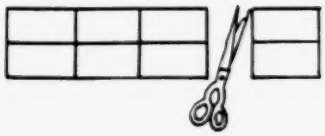
_____

P.O. 3.06.03.01-.03

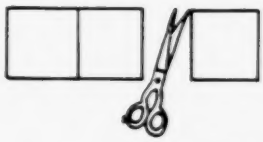
NAME: _____ CLASS: _____ DATE: _____

Follow the directions below.

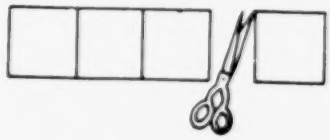
Complete the examples.



$\frac{8}{8} - \frac{2}{8} = \frac{6}{8}$



$\frac{3}{3} - \frac{1}{3} =$ ☐

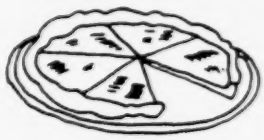


$\frac{4}{4} - \frac{1}{4} =$ ☐

$\frac{5}{6} - \frac{2}{6} =$ ____ $\quad \frac{2}{5} - \frac{1}{5} =$ ____ $\quad \frac{5}{8} + \frac{1}{8} =$ ____ $\quad \frac{4}{4} - \frac{2}{4} =$ ____ $\quad \frac{3}{8} + \frac{1}{8} =$ ____ $\quad \frac{3}{6} + \frac{2}{6} =$ ____ $\quad \frac{2}{3} - \frac{1}{3} =$ ____

Solve the problems below.

When Meg, Rob, and I arrived at the party, some of the pizza had been eaten. What fractional part of the pie was left for us?



_____

$\frac{2}{6}$ of the children were playing Pin the Tail on the Donkey.

$\frac{2}{6}$ of the children were playing Tag.

$\frac{2}{6}$ of the children were singing songs.

What fractional part of the group of children were playing games? _____

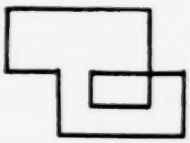
122

SHARPENING YOUR SKILLS

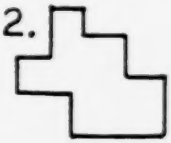
Units 42, 43,

Name: _____ **Class:** _____ **Date:** _____

Write the word simple or complex to describe each closed curve.

1. 

_____

2. 

_____

3.

_____

Draw a complex closed curve.

4.

On July 4, 1986, over 99,000 people saw Operation Sail. One group saw 17 ships, each with 4 sails. Another group saw 19 ships, each with 12 sails. A third group saw 28 ships each with 9 sails.

5. How many ships did all 3 groups see? _____

6. How many ships had fewer than 12 sails? _____

7. How many more ships had 9 sails than 12 sails? _____

8. $\frac{3}{8} + \frac{4}{8} = \square$

$\frac{7}{16}$ (a) $\frac{1}{8}$ (b) $\frac{1}{16}$ (c) $\frac{7}{8}$ (d)

9. $\frac{3}{6} - \frac{2}{6}$

(e) $\frac{1}{6}$ (f) $\frac{5}{6}$ (g) $\frac{6}{6}$ (h) Not Here

10. Complete each example.

$\frac{1}{3} + \frac{1}{3} = \square$

$\frac{3}{4} - \frac{1}{4} = \square$

11. Jessica spent 10 minutes walking $\frac{2}{5}$ of the way toward Miss Liberty's crown. Then she slowed down and spent 15 minutes walking another $\frac{2}{5}$ of the way.

How far did she get in 25 minutes?

Draw a line from each decimal to its equivalent fraction.

0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
$\frac{3}{10}$	$\frac{6}{10}$	$\frac{1}{10}$	$\frac{5}{10}$	$\frac{9}{10}$	$\frac{2}{10}$	$\frac{4}{10}$	$\frac{8}{10}$	$\frac{7}{10}$

Solve the following examples.

$$\begin{array}{r} 0.2 \\ +\ 0.4 \\ \hline \square \end{array} \qquad \begin{array}{r} \square \\ +\ 0.2 \\ \hline 0.7 \end{array} \qquad \begin{array}{r} 0.6 \\ +\ \square \\ \hline 0.9 \end{array}$$

$0.2 + 0.3 = \square$

$\square + 0.6 = 0.8$

$0.4 + \square = 0.7$

Solve each problem.

During the first week of April there were 0.3 inches of rain. The second and third weeks had a total of 0.4 inches of rain. How much rainfall was there during the first 3 weeks in April?

There were _____ inches of rain during the first 3 weeks of April.

The students in the science class measured the growth of tulip bulbs in the school garden. Some bulbs grew 0.4 inches in the first week of April and 0.5 inches in the second week of April. How tall did these bulbs grow in 2 weeks?

They grew _____ inches in 2 weeks.

Follow the directions below.

.O. 3.07.02.01.&.03

NAME: _____ CLASS: _____ DATE: _____

P.O. 3.07.02.02,&.03

NAME: _____ CLASS: _____ DATE: _____

Follow the directions below.

Solve the examples. Rewrite them in vertical format.

0.4 - 0.2 = ☐

$$\begin{array}{r} 0.4 \\ -\ 0.2 \\ \hline 0.2 \end{array}$$

0.5 - 0.3 = ☐

$$\begin{array}{r} \square \\ -\ \square \\ \hline \square \end{array}$$

0.6 - 0.1 = ☐

$$\begin{array}{r} \square \\ -\ \square \\ \hline \square \end{array}$$

0.7 - 0.3 = ☐

$$\begin{array}{r} \square \\ -\ \square \\ \hline \square \end{array}$$

0.9 - 0.6 = ☐

$$\begin{array}{r} \square \\ -\ \square \\ \hline \square \end{array}$$

0.8 - 0.5 = ☐

$$\begin{array}{r} \square \\ -\ \square \\ \hline \square \end{array}$$

Solve each problem.

solve

Howard and Joel built ant farms in jars. Howard filled 0.9 inches of his jar with sand. Joel filled 0.6 inches of his jar with sand. How much more sand was in Howard's jar?

Howard's jar had _____ more inches of sand.

solve

The gas tanks in Ellen's and Shari's cars are almost filled to the top. Ellen needs 0.8 gallons more. Shari needs 0.5 gallons more. How much less does Shari need?

Shari needs _____ gallons less than Ellen.

CHALLENGE!

8.9	9.2	11.6	5.2	15.2
- 2.7	- 3.1	+ .3	+ 2.8	- 3.6
_____	_____	_____	_____	_____

P.O. 3.12.02.01-.02

NAME: _____ CLASS: _____ DATE: _____

Follow the directions below.

Predict how many times heads or tails would come up if you toss a coin 10 times.

Prediction Box

Heads	Tails

Toss a coin 10 times and tally your results.

Tally of Tosses

Heads	Tails

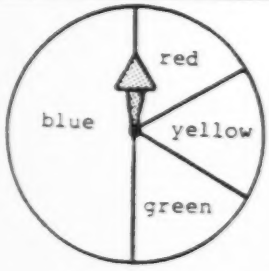
What is the difference between your prediction and your actual results? _____

_____

Use the words in the answer box to complete the sentences below.

Answer Box

possible probable	predict less likely	unlikely impossible



1. It is _____ to spin a blue.
2. It is _____ to spin a yellow.
3. It is _____ to spin a white.
4. Can you _____ the outcome without spinning?

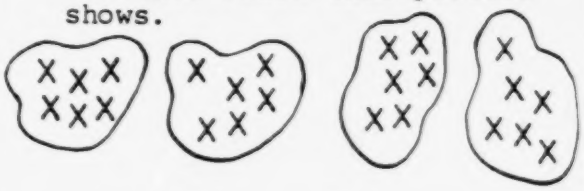
P.O. 3.04.06.01 & .04

NAME: _____ CLASS: _____ DATE: _____

Follow the directions below.

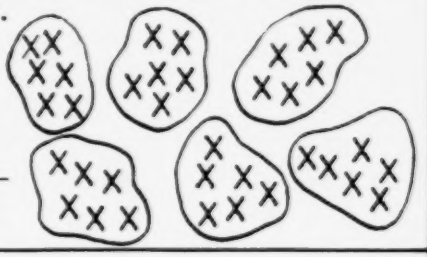
Complete the number sentences for questions 1 - 4.

1. Write the multiplication sentence which this picture shows.



_____ x _____ = _____

2. Write the multiplication example which this picture shows.



_____
x _____
_____

3. Write the multiplication sentence which means the same as.

6 + 6 + 6 + 6 + 6 + 6 + 6 + 6 = ☐

☐
x ☐
☐

4. Complete each example.

5 x 6 = ☐

7 x 6 = ☐

3 x 6 = ☐

6	6
x 1	x 9
☐	☐

Solve the problems below.

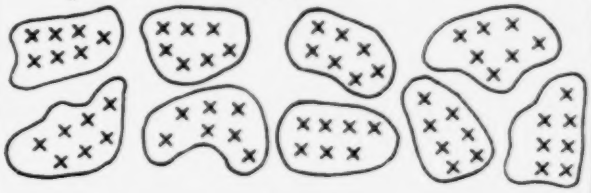
5. In Cora's building, each story is exactly 8 feet high. If there are 6 stories in the building, how high is the roof from the street? The roof is ____ feet high.	solve
6. On the first floor of Cora's building there are 6 apartments. Each apartment has 6 rooms. How many rooms are there on the first floor? There are ____ rooms.	solve
7. The Marks family has 6 daughters. The Stone family has 6 sons. The Lee family has 6 daughters. How many children are in the 3 families? There are ____ children in the 3 families.	solve
8. The building superintendent must repair 4 windows. Each window has 6 broken window panes. How many window panes must he replace? He must replace ____ window panes.	solve

P.O. 3.04.06.02&.04

NAME: _____ CLASS: _____ DATE: _____

Follow the directions below.

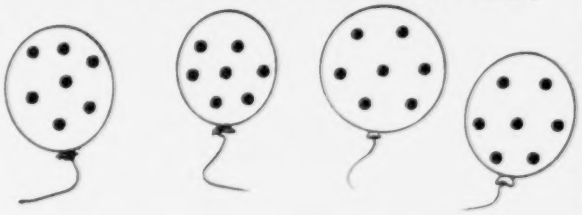
1. Write the multiplication sentence which this picture shows.



____ groups of ____ = _____

_____ X _____ = _____

2. Write the example which this picture illustrates.



____ groups of ____ = _____

_____ X _____ = _____

3. Write the multiplication sentence which means the same as:

7+7+7+7+7+7+7 = 49

_____ X _____ = ☐

4. Complete each example.

7 x2	7 x8	7 x7	7 x5
☐	☐	☐	☐

1 x 7 = ☐ 3 x 7 = ☐

Solve the problems below.

5. In Paul's Pet Shop, there are 4 bird cages. Each cage holds 7 parrots. How many parrots are there in all?

There are _____ birds in all.

solve

6. Paul sold 7 packages of bird seed on each of 6 days. How many packages did he sell?

Paul sold _____ packages.

solve

Do you remember?

Mr. Green's peach orchard in Georgia has 523 trees. Mrs. Smith's apple orchard in New York has 237 trees. Mrs. Rivera's orange orchard in Florida has 419 trees. How many more fruit trees has Mr. Green than Mrs. Rivera?

_____ more fruit trees.

solve

P.O. 3.04.06.01-.03

NAME: _____ CLASS: _____ DATE: _____

Follow the directions below.

Complete each number sentence.

① $5 \times 6 = \square$ $\quad 6 \times 5 = \square$

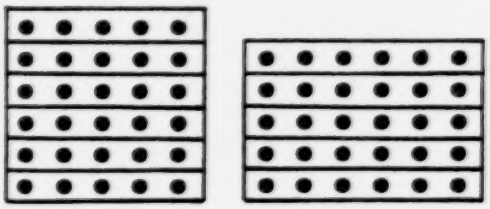
$5 \times 6 = 6 \times \square$

② $\begin{array}{r} 8 \\ \times\ 7 \\ \hline \square \end{array}$ $\quad \begin{array}{r} 7 \\ \times\ 8 \\ \hline \square \end{array}$

$7 \times 8 = \square \times 7$

③

$7 \times \square = 3 \times \square$

④ 

$\square \times 5 = 5 \times \square$

Solve each problem.

5. Gondolas are long, narrow boats. The lake in Central Park has gondolas which hold 6 people each. If there are 3 gondolas on the lake, each holding 6 people, how many people are riding in gondolas?

_____ people are riding in gondolas.

Solve

6. Rowboats on the lake hold 7 people each. 9 full rowboats were on the lake. How many people were in rowboats?

_____ people were in the rowboats.

Solve

CHALLENGE!

Sara pushed a gondola 5 days a week for 7 weeks. Walter pushed a gondola 7 days a week for 5 weeks. How many days did Sara and Walter work in all?

They worked _____ days in all.

Solve

SHARPENING YOUR SKILLS

Units 44,45,46,47

Name:_____ **Class:** _____ **Date:**_____

1. Which sum will make both examples true?

$$\begin{array}{r} 0.4 \\ +\ 0.3 \\ \hline \end{array} \qquad 0.4 + 0.3 = \square$$

0.1 (a) 0.7 (b) 4.3 (c) 7.0 (d)

2. Which vertical example will have the same difference as $0.9 - 0.3 = \square$

$$\begin{array}{r} 9.0 \\ -\ 3.0 \\ \hline \end{array} \quad \begin{array}{r} 0.9 \\ +0.3 \\ \hline \end{array} \quad \begin{array}{r} 9.0 \\ -0.3 \\ \hline \end{array} \quad \begin{array}{r} 0.9 \\ -0.3 \\ \hline \end{array}$$

(e) (f) (g) (h)

3. During a winter storm we measured the daily snowfall. On Monday, there were 0.8 cm of snow. On Tuesday there were 0.1 cm of snow.

How much snow had fallen on Monday and Tuesday?

_____

How much more snow fell on Monday than on Tuesday?

_____

4. Complete each number sentence.

$5 \times 7 = \square \times 5$

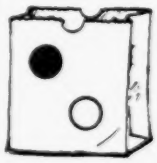
$\square \times 6 = \square \times 8$

$3 \times 7 = 7 \times \square$

5. Pretend you are tossing a coin 100 times. Which prediction would you make about the possible outcome of 100 tosses?

	Heads	Tails	Total Flips
(a)	100	0	100
(b)	0	100	100
(c)	50	50	100

6. Pretend you are reaching into the bag without looking and pick a marble. Replace it and repeat that 50 times. You would probably draw _____.



(d) the black marble most of the time.

(e) the white marble most of the time.

(f) the white and black marble about the same number of times.

7. From which bag are you most likely to draw a black marble?

(a) (b) (c) (d)

8. Julio went to the dentist for his checkup. He was asked to return in six weeks. How many days is that?

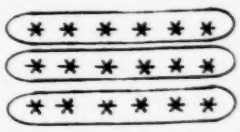
_____ days.

P.O. 3.05.04.01 & .03

NAME: _____ CLASS: _____ DATE: _____

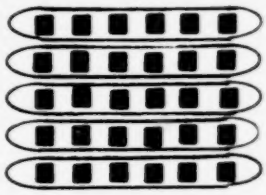
Follow the directions below.

For each array write 2 division examples.



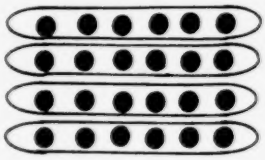
18 ÷ 6 = 3

$6\overline{)18}$ 3



___ ÷ ___ = ___

___ ÷ ___ = ___



___ ÷ ___ = ___

Solve and check.

$6\overline{)6}$ check	$6\overline{)12}$ check	$6\overline{)36}$ check
$6\overline{)24}$ check	$6\overline{)30}$ check	$6\overline{)18}$ check
$6\overline{)42}$ check	$6\overline{)48}$ check	$6\overline{)54}$ check

Solve the problems.

Not too long ago, postcards cost 6¢. How many postcards could you buy for 30¢?

You could buy _____ 6¢ postcards for 30¢.

Letters always cost more to mail than postcards. If you spent 54¢ and mailed 6 letters, how much did each letter cost to mail?

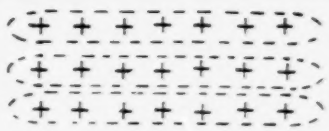
Each letter cost _____ to mail.

P.O. 3.05.04.02-.03

NAME: _____ CLASS: _____ DATE: _____

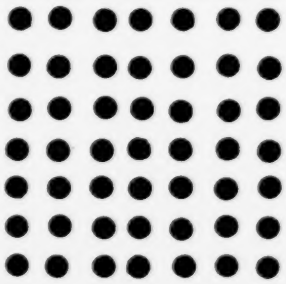
Follow the directions below.

Circle groups of 7. Write and check a division example for each.

① 

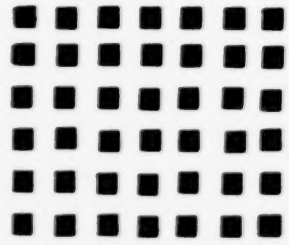
21 ÷ 7 = 3

3 X 7 = 21

② 

___ ÷ ___ = ___

___ X ___ = ___

③ 

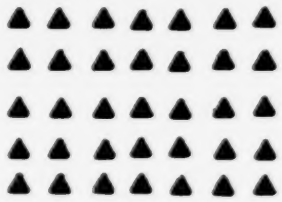
___ ÷ ___ = ___

___ X ___ = ___

④

___ ÷ ___ = ___

___ X ___ = ___

⑤ 

___ ÷ ___ = ___

___ X ___ = ___

⑥

___ ÷ ___ = ___

___ X ___ = ___

⑦ Solve the problem.

A U.S. Olympic bicycle racer trained for a total of 49 hours during the entire week before the race. If the racer trained for an equal number of hours each day, for how many hours a day was she in training?

She was in training for _____ hours a day.

Do you remember?

$\frac{4}{5}$ of the U.S. Olympic broadjump team will compete.

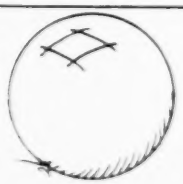
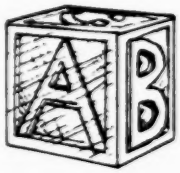
Draw a ring around $\frac{4}{5}$ of the team.

$\frac{4}{5}$ of 15 = ☐

P.O. 3.09.04.01

NAME: _____ CLASS: _____ DATE: _____

Write the name of each shape (cone, cylinder, sphere, or cube) under each picture.

① A party hat is a _____.	② A soup can is a _____.	③ The Earth is a _____.
④ A ball is a _____.	⑤ This gift box is a _____.	⑥ The cracker that holds the ice cream is a _____.
⑦ A water pipe is a _____.	⑧  This balloon is a _____.	⑨  A baby's block is a _____.

DO YOU REMEMBER?

$1.00 = _____ quarters, _____ dimes, and _____ pennies

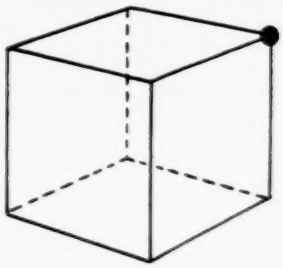
$5.00 = 3 one dollar bills, _____ half-dollars, and _____ pennies

$10.00 = _____ five dollar bill, and _____ quarters

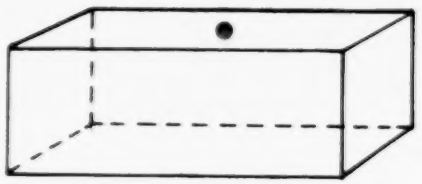
P.O. 3.09.04.02

NAME: _____ CLASS: _____ DATE: _____

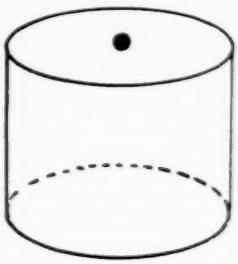
Write the name of the part of each figure (vertex, face, edge, or angle) which is marked with the dot.

① 

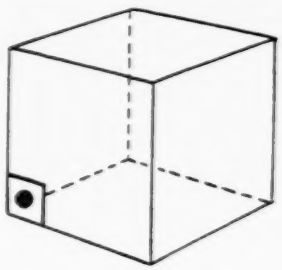
The dot is on the vertex.

② 

The dot is on the _____.

③ 

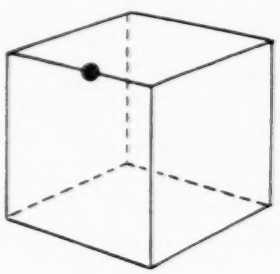
The dot is on the _____.

④ 

The dot is on the _____.

⑤

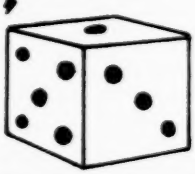
The dot is on the _____.

⑥ 

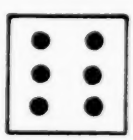
The dot is on the _____.

CHALLENGE!

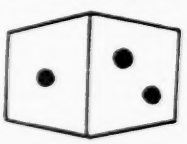
Some of the faces on the dice are hidden. How many faces are hidden on each die?



___ faces are hidden.



___ faces are hidden.

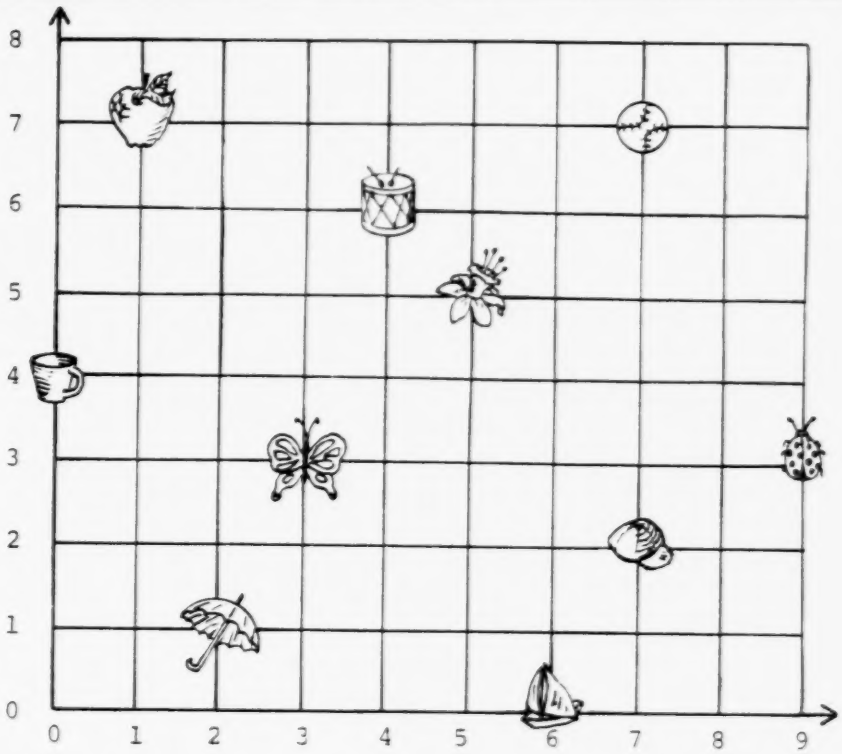


___ faces are hidden.

P.O. 3.09.05.01-.02

NAME: _____ CLASS: _____ DATE: _____

Use the grid to answer the questions below.



(1) For the butterfly to land on the flower, it must go ____ spaces horizontally and _____ spaces vertically.

(2) For the ladybug to find the apple, it must go _____ spaces horizontally and _____ spaces vertically.

(3) For the umbrella to stop the baseball from getting wet it must go _____ spaces horizontally and _____ spaces vertically.

Write the ordered pairs which give the location for each.
The first is done for you. baseball (7, 7)

apple _____ sailboat _____ cup _____

flower _____ butterfly _____ drum _____

ladybug _____ umbrella _____ cap _____

P.O. 3.04.07.01 & .04

NAME: _____ CLASS: _____ DATE: _____

Follow the directions below.

The Lady with the Light is Quite a Sight

Who is the lady? Solve each multiplication example. Use the Key to place the letters in the spaces on the chart.

5 x5	8 x5	8 x7	8 x5	8 x1	8 x3		8 x6	8 x0		8 x8	8 x2	6 x6	8 x3	8 x9	8 x5	8 x4

Key

25 = S	40 = T	8 = U	36 = B
56 = A	0 = F	48 = O	32 = Y
24 = E	64 = L	16 = I	72 = R

Solve the problems.

6 students went up to Miss Liberty's torch. Each student released 8 balloons over the harbor. How many balloons were released?

_____ balloons were released.

In 1 school there were 8 students from each of 5 classes who entered the Miss Liberty poetry contest. How many students entered the contest?

_____ students entered the contest.

P.O. 3.04.07.01,.02,.04

NAME: _____ CLASS: _____ DATE: _____

Follow the directions below.

Write the product for each example.

8 x1	8 x2	8 x3	8 x4	8 x5	8 x6	8 x7	8 x8	8 x9
8								

1 x 9 = 9
2 x 9 = ☐
3 x 9 = ☐
4 x 9 = ☐
5 x 9 = ☐
6 x 9 = ☐
7 x 9 = ☐
8 x 9 = ☐
9 x 9 = ☐

Solve the following examples. Then write them in vertical format.

6 x 9 = 54
5 x 9 = ☐
7 x 9 = ☐

9	☐	☐
x 6	x ☐	x ☐
54	☐	☐

Solve the problems.

In January, 9 students lost their red mittens. In February, 9 students lost their green mittens. In March, 9 students lost their blue mittens. How many students lost their mittens during these 3 months?

_____ students lost their mittens.

From January through May, 8 students wrote stories about the holidays. Each student wrote 1 story each month. There were _____ stories written in all.

P.O. 3.04.07.03

NAME: _____ CLASS: _____ DATE: _____

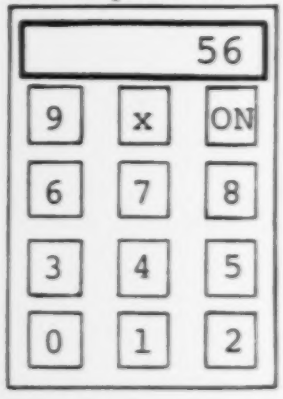
Follow the directions below.

Complete each open number sentence.

8 x 9 = 72 9 x 8 = ☐	7 x 8 = 56 8 x 7 = ☐	5 x 9 = 45 9 x 5 = ☐
3 x 8 = 24 ☐ x 3 = 24	9 x 8 = ☐ 8 x 9 = ☐	6 x ☐ = 54 ☐ x 6 = 54
9 x 8 = ☐ x 9	☐ x 8 = 8 x 6	3 x 9 = 9 x ☐

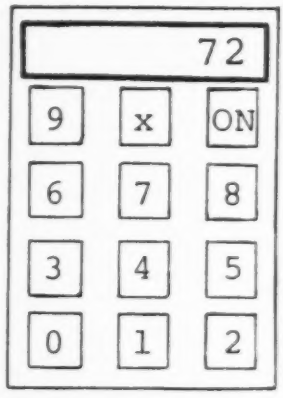
CALCULATOR RIDDLES

Circle the two buttons that were pressed on each calculator to get the product.



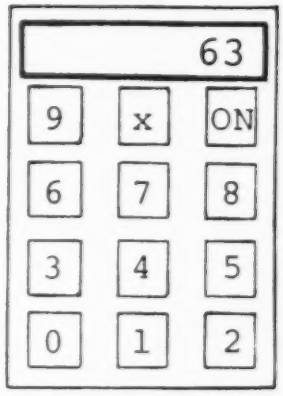
☐ x ☐ = 56

☐ x ☐ = 56



☐ x ☐ = 72

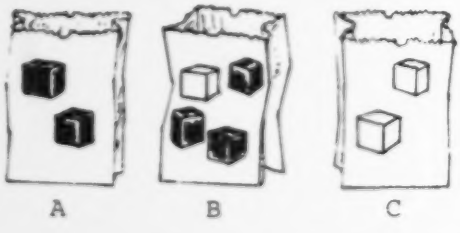
☐ x ☐ = 72



☐ x ☐ = 63

☐ x ☐ = 63

Do you remember?



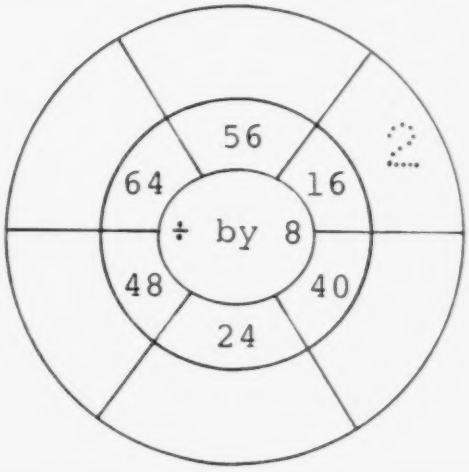
1. From which bag are you certain to draw a white cube? _____
2. From which bag is it impossible to draw a white cube? _____
3. From which bag are you most likely to draw a black cube? _____

P.O. 3.05.05.01 & .03

NAME: _____ CLASS: _____ DATE: _____

Follow the directions below.

Complete the division wheel.



Solve each example and check.

$8 \overline{)\square}$ 8 check

$8 \overline{)\square}$ 32 check

$8 \overline{)\square}$ 72 check

Write a question for each problem and solve.

Bob has been raising sheep in Australia. His 56 sheep share 8 pens equally.

Question: _____

_____

_____

solve

Surfing is very popular in Australia. There are a total of 32 surfers on all 8 teams.

Question: _____

_____

_____

solve

Do you remember?

Two large groups of kangaroos joined to make a single group. One group had 369 kangaroos and the other group had 376 kangaroos. How many kangaroos are there in the new group?

There are _____ kangaroos in the new group.

P.O. 3.05.05.02-.03

NAME:_____ CLASS:_____ DATE:_____

Follow the directions below.

Solve each division example. Rewrite each example horizontally and check.

$9\overline{)18}$ $\quad 2$ $18 \div 9 = 2$ check $2 \times 9 = 18$	$9\overline{)36}$ check	$9\overline{)54}$ check	$9\overline{)72}$ check	$9\overline{)27}$ check
$9\overline{)45}$ check	$9\overline{)81}$ check	$9\overline{)72}$ check	$9\overline{)63}$ check	$9\overline{)9}$ check

Solve each problem.

solve

54 live parrots were captured in the Amazon Jungle. An equal number of these parrots were sent to 9 zoos in the United States. How many parrots were sent to each zoo?

_____ parrots

solve

9 people went on the parrot hunt. There were photographers, bird experts, students, jeep drivers, and a doctor. The cooking was shared equally during the 18 days of the hunt. For how many days did each person have to cook?

_____ days

P.O. 3.11.02.01

NAME: _____ CLASS: _____ DATE: _____

Follow the directions below.

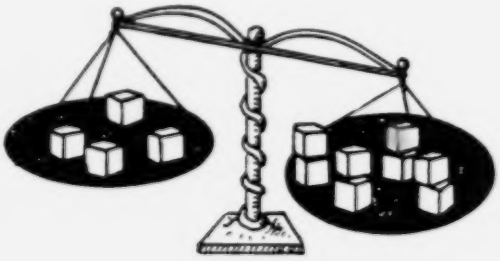
Complete each sentence by writing greater than, less than, or equal to.

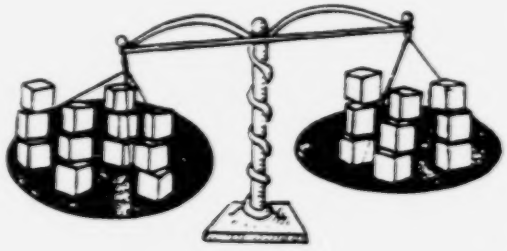
The symbol, $<$ means _____.

The symbol, $>$ means _____.

The symbol, $=$ means _____.

Fill in the circle next to the inequality which is true for each picture.





ⓐ $8 + 2 > 8$ ⓒ $8 + 4 > 2$

ⓑ $8 - 4 < 12$ ⓓ $2 + 2 < 8$

ⓔ $6 + 3 < 12$ ⓖ $9 + 1 < 22$

ⓕ $12 + 1 > 9$ ⓗ $12 + 10 < 10$

Write $>$ or $<$ in each ◯ to make the statements true.

$6 + 3$ ◯ 8	4×5 ◯ 9	9 ◯ $3 + 3$
3×2 ◯ 7	$8 + 4$ ◯ 14	17 ◯ 4×4
$12 + 6$ ◯ 16	$7 + 8$ ◯ 10	21 ◯ 8×3

CHALLENGE!

Write $>$, $<$, or $=$ in each ◯ to make the statements true.

7×8 ◯ $8 + 5$

9×4 ◯ 6×6

3×3 ◯ $3 + 3$

$5 + 3 + 9$ ◯ 18

4×8 ◯ 8×4

$6 + 2 + 6$ ◯ $10 + 3 + 1$

P.O. 3.11.02.02

NAME: _____ CLASS: _____ DATE: _____

Follow the directions below.

Circle the numbers which belong in the solution set for each inequality. Then write the solution set.

① $\square + 8 < 12$

0, 1, 2, 3, 4, 5, 6, 7, 8, 9

solution set = { 0, 1, 2, 3 }

② $\square + 8 < 9$

0, 1, 2, 3, 4, 5, 6, 7, 8, 9

solution set = { }

③ $6 \times \square < 36$

0, 1, 2, 3, 4, 5, 6, 7, 8, 9

solution set = { }

④ $\square \times 5 < 20$

0, 1, 2, 3, 4, 5, 6, 7, 8, 9

solution set = { }

⑤ $3 \times \square < 15$

0, 1, 2, 3, 4, 5, 6, 7, 8, 9

solution set = { }

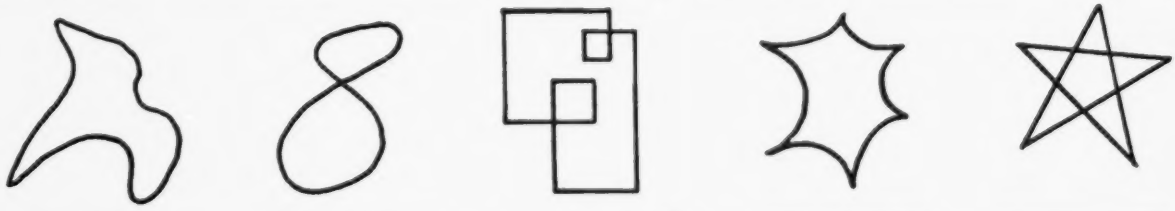
⑥ $\square + 7 < 16$

0, 1, 2, 3, 4, 5, 6, 7, 8, 9

solution set = { }

Do you remember?

Describe each closed curve by writing simple or complex.



_____ _____ _____ _____ _____

SHARPENING YOUR SKILLS

Units 51,52,53

Name: _____ **Class:** _____ **Date:** _____

1. Multilply.

8	9	9	8
x2	x5	x7	x6
☐	☐	☐	☐

3 x 9 = ☐

6 x 9 = ☐

5 x 8 = ☐

9 x 8 = ☐

2. Write the missing factors and products.

7 x 8 = 8 x ☐ = ☐

4 x ☐ = 9 x 4 = ☐

☐ x 3 = 3 x 8 = ☐

0 x 8 = ☐ x 0 = ☐

3. Eight baseball teams played ball in Flushing Meadow Park. There were 9 players on each team. How many players were there in all?

There were _____ players in all.

4. Divide and check.

	check
27 ÷ 9 = ☐	___ x ___ = ___
40 ÷ 8 = ☐	___ x ___ = ___
24 ÷ 8 = ☐	___ x ___ = ___
☐ 9)72	___ x ___ = ___
☐ 9)18	___ x ___ = ___

5. Which of the following best describes the inequality:

3 + 4 < 9 ?

(a) Three plus four is greater than nine.

(b) Three plus four is less than nine.

(c) Nine is less than three plus four.

(d) Three plus four is equal to nine.

6. Which is the solution set for

☐ x 8 < 16?

(e) {0, 1}

(f) {0, 1, 2}

(g) {0, 1, 2, 3}

(h) {0, 1, 2, 3, 4}

P.O. 3.04.08.01-.02

NAME: _____ CLASS: _____ DATE: _____

Follow the directions below.

Solve the examples in 1-4 by writing a number in each box.

① 8 x 10 = ☐
5 x 10 = ☐
1 x 10 = ☐
7 x 10 = ☐

② 10 x 2 = ☐ 10 x 6 = ☐ 10 x 4 = ☐

③ 4 x 10 = ☐
☐ x 4 = 40
4 x 10 = ☐ x 4

④ 9 x 10 = 10 x ☐
10 x ☐ = 8 x 10
☐ x 6 = 6 x 10

⑤ Complete the number patterns.

10, 20, 30, ___, 50, ___.

50, 60, ___, ___, ___, 100.

⑥ Complete the sentences.

If 4 x 10 = 40, then 10 x 4 = ____.

If 10 x 7 = 70, then 7 x 10 = ____.

If 1 x 10 = 10, then 10 x 1 = ____.

Solve the problems.

⑦ Janie had 8 dimes in her pocket.

Eight dimes = ____ cents.

⑧ Every floor of a building is 10 feet higher than the floor below it. How high is the sixth floor?

The sixth floor is ____ feet high.

P.O. 3.04.08.03 - .04

NAME: _____ CLASS: _____ DATE: _____

Find an example in the first column which has the same product as an example in the second column. Complete each sentence in the third column.

1. (6 x 4) x 10	a. 7 x (10 x 3)	Number 1 and letter ___ have the same product.
2. 6 x 70	b. 10 x (2 x 6)	Number 2 and letter ___ have the same product.
3. (7 x 10) x 3	c. 4 x (10 + 10 + 10 + 10)	Number 3 and letter ___ have the same product.
4. 4 x (5 x 10)	d. 6 x (10 + 10 + 10 + 10 + 10)	Number 4 and letter ___ have the same product.
5. 9 x 20	e. 8 x (10 + 10 + 10)	Number 5 and letter ___ have the same product.
6. (10 x 2) x 6	f. (3 x 9) x 10	Number 6 and letter ___ have the same product.
7. 3 x (10 x 9)	g. (4 x 5) x 10	Number 7 and letter ___ have the same product.
8. 6 x 50	h. (10 x 6) x 7	Number 8 and letter ___ have the same product.
9. (8 x 10) x 4	i. 10 x (8 x 4)	Number 9 and letter ___ have the same product.
10. 4 x 40	j. 9 x (10 + 10)	Number 10 and letter ___ have the same product.

P.O. 3.04.08.05

NAME: _____ CLASS: _____ DATE: _____

Solve the problems below.

① Solve.

20	40	60	80
x 6	x 4	x 6	x 7
120			

② Solve.

7 x 50 = 350

3 x 30 = ____

2 x 90 = ____

4 x 80 = ____

③ Solve.

20 x 2 = 2 x 20 = 40

50 x 9 = ____ x 50 = ____

____ x 7 = 7 x 30 = ____

60 x ____ = 5 x 60 = ____

④ Match.

30 x 7 •	• 630
70 x 9 •	• 450
80 x 4 •	• 210
90 x 5 •	• 320

⑤ Each ferry going to Bear Mountain State Park carried 70 students. If there were 4 ferries, how many students went to the park?

____ students went to the park.

⑥ 60 students went fishing in the Hudson River. They each brought 2 fish home. How many fish were brought home in all?

____ fish were brought home.

Do you remember?

132 students rented bicycles at the park. 58 students rented rowboats. How many fewer students went rowing than bicycling?

____ fewer students went rowing.

4 boys shared food for the picnic. Phil spent $14.85. Dave spent $6.08. Chuck spent $10.90. Hal spent $2.00. How much money did the 4 boys spend on the picnic?

The boys spent _____ on the picnic.

P.O. 3.13.03.01

NAME: _____ CLASS: _____ DATE: _____

Follow the directions below.

Complete the patterns and write the rule.

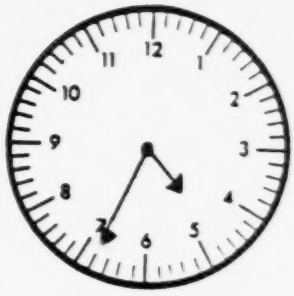
	Rule
0, 1, 2, 3, 4, 5, 6	Counting by ones. Add 1.
20, 18, 16, 14, 12, ___, ___	_____
0, 5, 10, 15, 20, ___, ___	_____
42, 36, 30, 24, 18, ___, ___	_____
18, 27, 36, 45, 54, ___, ___	_____

Read the rule. Form a pattern for the rule.

Rule	
Add 4.	8, 12, 16, 20, 24
Counting backward by 10.	____, ____, ____, ____, ____
Subtract 2.	____, ____, ____, ____, ____
Counting forward by 7.	____, ____, ____, ____, ____

Do you remember?

___ minutes before ___



___ minutes of ___

___ minutes to ___

P.O. 3.13.03.02

NAME: _____ CLASS: _____ DATE: _____

Follow the directions below.

Arrange each group of numbers to form a pattern. Then write the rule.

Ⓐ 5, 20, 30, 10, 25, 15 Rule: Counting by fives;

5, 10, 15, 20, 25, 30 Adding 5.

Ⓑ 15, 9, 21, 18, 12, 24 Rule: _____

___, ___, ___, ___, ___, ___ _____

Ⓒ 36, 24, 30, 54, 48, 42 Rule: _____

___, ___, ___, ___, ___, ___ _____

Ⓓ 24, 48, 32, 56, 40, 16 Rule: _____

___, ___, ___, ___, ___, ___ _____

CHALLENGE! What is the pattern?

The third number must be odd.
The second number must be double the first.
The last number must be less than 30.
The fourth number must equal 10 + 10.

☐ ☐ ☐ ☐ ☐

Rule: _____

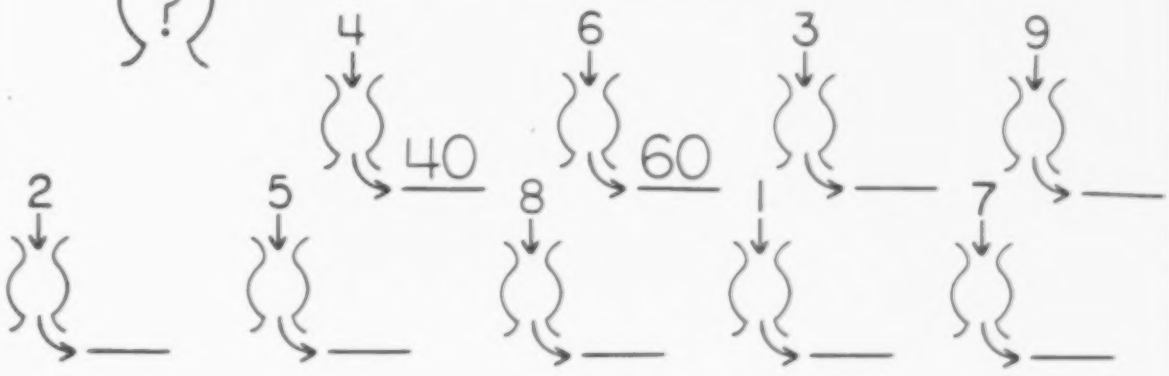
SHARPENING YOUR SKILLS

Units 54, 55

Name: _____ Class: _____ Date: _____

The Magic Vase

When I drop a number in the magic vase,
it is a different number when it comes out.
How does my magic vase change the numbers?
Can you change numbers the same way?



What did my magic vase do? _____

Complete the pattern. Write the rule.

9, 12, 15, 18, ____, ____

Rule: _____

_____

50, 45, 40, 35, ____, ____

Rule: _____

_____

Rearrange each group of numbers to make a pattern.

80, 20, 100, 40, 60

____, ____, ____, ____, ____

12, 20, 8, 24, 16

____, ____, ____, ____, ____

Write the missing numbers.

(2 x 4) x 10 = 2 x (4 x 10)

□ x 10 = □ x □

□ = □

P.O. 3.04.09.01

NAME: _____ CLASS: _____ DATE: _____

Complete each sentence below.

x	0	1	2	3	4	5	6	7	8	9	10
0	0	0	0	0		0	0	0	0	0	0
1	0	1	2	3	4	5	6	7	8	9	
2	0	2		6	8	10	12		16		20
3	0	3	6	9	12		18	21	24		30
4	0	4	8		16	20	24	28	32	36	
5	0	5	10	15	20	25	30	35	40	45	50
6	0	6	12	18	24	30		42	48		60
7	0	7	14	21		35	42	49	56	63	70
8	0	8	16	24	32	40			64		80
9		9	18	27	36	45	54	63		81	
10	0	10	20	30	40	50	60	70	80	90	100

Complete the chart. Then write a multiplication sentence and its product for each missing number.

3 x 1 = 3

_____ x _____ = _____

_____ x _____ = _____

_____ x _____ = _____

_____ x _____ = _____

_____ x _____ = _____

_____ x _____ = _____

_____ x _____ = _____

_____ x _____ = _____

_____ x _____ = _____

_____ x _____ = _____

The is covering _____.

The is covering _____.

The is covering _____.

The is covering _____.

The is covering _____.

The is covering _____.

The is covering _____.

The is covering _____.

The is covering _____.

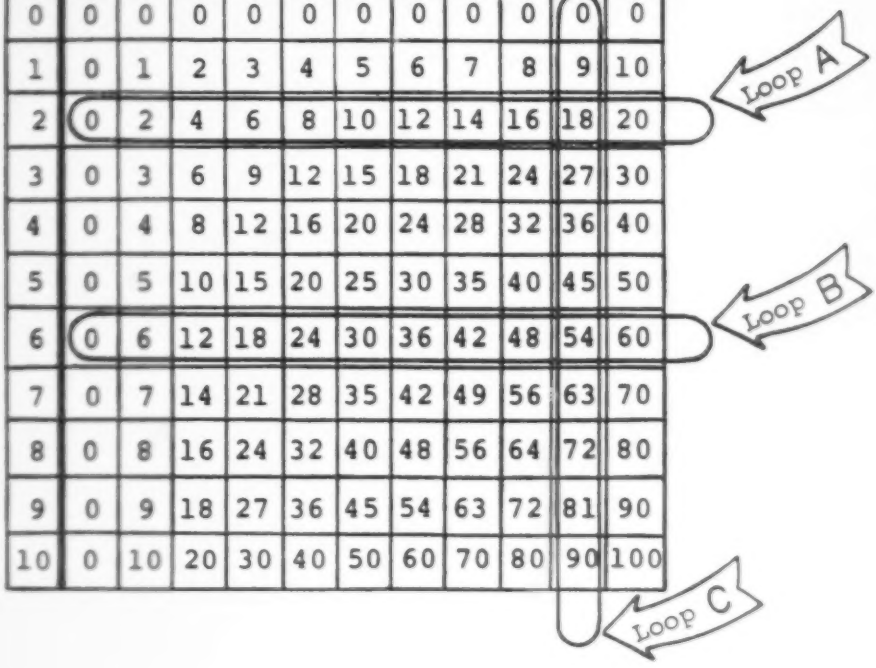
150

P.O. 3.04.09.02

NAME: _____ CLASS: _____ DATE: _____

Find a pattern in each of the loops.

x	0	1	2	3	4	5	6	7	8	9	10
0	0	0	0	0	0	0	0	0	0	0	0
1	0	1	2	3	4	5	6	7	8	9	10
2	0	2	4	6	8	10	12	14	16	18	20
3	0	3	6	9	12	15	18	21	24	27	30
4	0	4	8	12	16	20	24	28	32	36	40
5	0	5	10	15	20	25	30	35	40	45	50
6	0	6	12	18	24	30	36	42	48	54	60
7	0	7	14	21	28	35	42	49	56	63	70
8	0	8	16	24	32	40	48	56	64	72	80
9	0	9	18	27	36	45	54	63	72	81	90
10	0	10	20	30	40	50	60	70	80	90	100



Loop A _____

Loop B _____

Loop C _____

Draw loops around 3 more groups of numbers. Label the loops. Explain the patterns.

Loop D _____

Loop E _____

Loop F _____

P.O. 3.12.03.01

NAME: _____ CLASS: _____ DATE: _____

Follow the directions below.

List the arrangements for each set of items below.

{ △, □, ○ }

1. _____ 3. _____ 5. _____

2. _____ 4. _____ 6. _____

{ 1, 5, 3, 6 }

1. _____ 9. _____ 17. _____

2. _____ 10. _____ 18. _____

3. _____ 11. _____ 19. _____

4. _____ 12. _____ 20. _____

5. _____ 13. _____ 21. _____

6. _____ 14. _____ 22. _____

7. _____ 15. _____ 23. _____

8. _____ 16. _____ 24. _____

CHALLENGE!

Have you seen the pattern?

The number of arrangements that can be made with 3 items is ____ or 3 x 2 x 1 = 6. The number of arrangements that can be made with 4 items is ____ or ___ x ___ x ___ x ___ = ____.

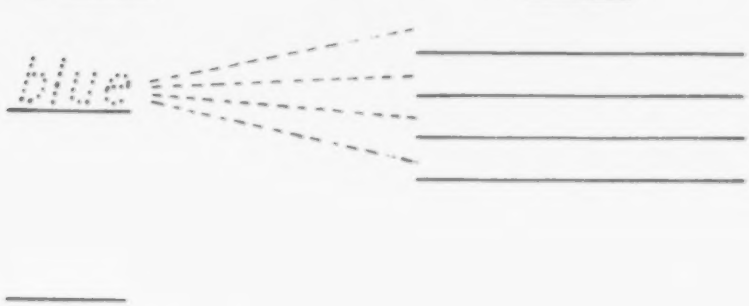
Use this formula to find the number of arrangements you can make with 5 items. ___ x ___ x ___ x ___ x ___ = ____.

P.O. 3.12.03.02

NAME:_____ CLASS:_____ DATE:_____

Follow the directions below.

Fords, Cadillacs, Toyotas, and Buicks are sold in either red or blue. Make a tree diagram to show the combinations of cars and colors.



Make a tree diagram to show the combinations of shoes with socks. Use the following data:

brown shoes, red shoes

white socks, red socks, blue socks

Do you remember?

In the Olympics there were 28 swimmers from 7 different countries. If each team had an equal number of swimmers, how many swimmers were on each team?

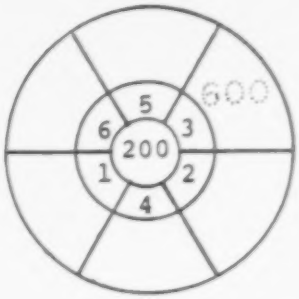
There were _____ swimmers on each team.

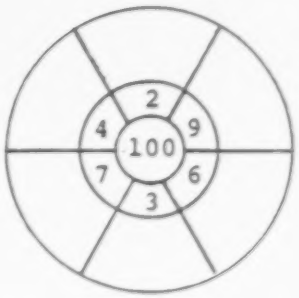
P.O.3.04.10.01 & .03

NAME:_____ CLASS:_____ DATE:_____

Complete each example and problem below.

① Multiply the number in the center of each wheel by the numbers around them.





② 20 x 3 = 200 x 3 =

4 x 10 = ☐

1 x 40 = ☐

2 x 30 = ☐

4 x 100 = ☐

1 x 400 = ☐

2 x 300 = ☐

40 x 2 = 400 x 2 =

③ Joan earns 300 dollars a week. If she works for 3 weeks, how much money will she earn?

She will earn _____ dollars.

④ Theater tickets for senior citizens cost 2 dollars each. If 400 senior citizens go to the movies, how much money will the theater take in?

The theater will take in _____ dollars.

⑤ Each carton of math books contains 100 books. If the school receives 9 cartons, how many books will it receive?

The school will receive _____ books.

⑥ Two jars of vitamins each contain 200 vitamins. If Sally takes 1 vitamin a day, for how many days will the two jars last?

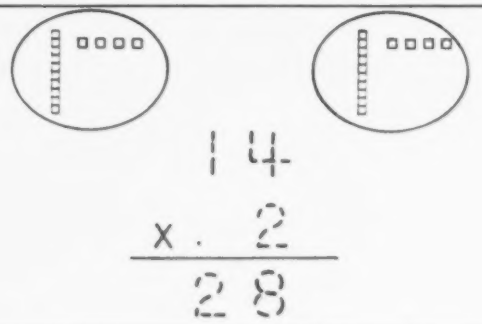
The two jars will last _____ days.

P.O. 3.04.10.02-.03

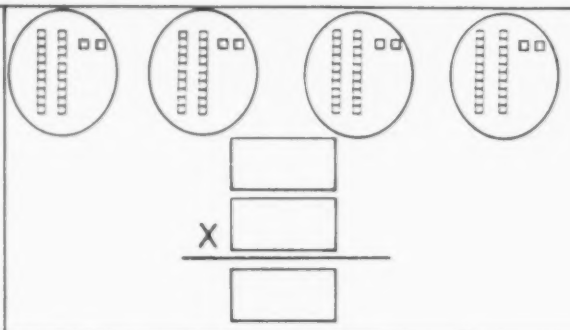
NAME: _____ CLASS: _____ DATE: _____

Follow the directions below.

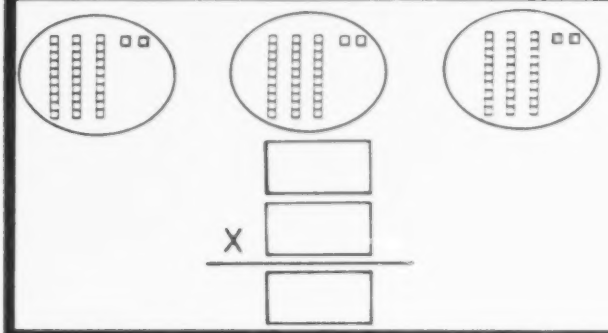
Write and solve the multiplication example represented by each group of squared material.



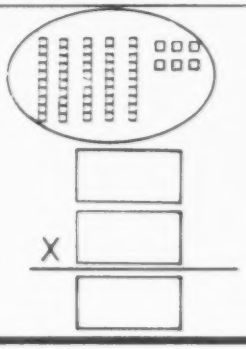
14
x 2
28



x



x



x

Find the product for each example. Then write the example horizontally.

42
x 2
____

____ x ____ = ____

33
x 3
____

____ x ____ = ____

Complete this example in expanded notation.

243 = ____ hundreds + ____ tens + ____ ones = ____ + 40 + ____

x 2

x 2

____ hundreds + ____ tens + 6 ones

x 2

____ + ____ + 6

In Maria's school each staircase has 13 steps. Maria is on the first floor. She wants to go to her classroom on the fourth floor. How many steps must she walk?

Maria must walk _____ steps.

SHARPENING YOUR SKILLS

Units 56, 57, 58

Name: _____ **Class:** _____ **Date:** _____

Find the hidden products on the multiplication table. Then write the facts.

x	0	1	2	3	4	5	6	7	8	9	10
0	0	0	0	0	0	0	0	0	0	0	0
1	0	1	2	3	4	5	6	7	8	9	10
2	0	2	4	6	8	10	12	14	[heart]	18	20
3	0	3	6	9	[triangle]	15	18	21	24	27	30
4	0	4	8	12	16	20	24	28	32	36	[smiley]
5	0	5	10	15	20	25	30	[ball]	40	45	50
6	0	6	[mitten]	18	24	30	36	42	48	54	60
7	0	7	14	21	28	35	42	49	56	63	70
8	0	8	16	24	32	40	[star]	56	64	[apple]	80
9	0	9	18	27	36	45	54	63	72	81	90
10	0	10	20	30	40	50	60	70	80	90	100

1. [triangle] is covering 12. 3X4 = 12
2. [heart] is covering ☐. _____
3. [smiley] is covering ☐. _____
4. [mitten] is covering ☐. _____
5. [star] is covering ☐. _____
6. [apple] is covering ☐. _____
7. [ball] is covering ☐. _____

8. Write all the possible arrangements for the set of numbers, | 9, 2, 4 |

_____ _____

_____ _____

_____ _____

Look for the patterns on the multiplication table.

x	0	1	2	3	4	5	6	7	8	9	10
0	0	0	0	0	0	0	0	0	0	0	0
1	0	1	2	3	4	5	6	7	8	9	10
2	0	2	4	6	8	10	12	14	16	18	20
3	0	3	6	9	12	15	18	21	24	27	30
4	0	4	8	12	16	20	24	28	32	36	40
5	0	5	10	15	20	25	30	35	40	45	50
6	0	6	12	18	24	30	36	42	48	54	60
7	0	7	14	21	28	35	42	49	56	63	70
8	0	8	16	24	32	40	48	56	64	72	80
9	0	9	18	27	36	45	54	63	72	81	90
10	0	10	20	30	40	50	60	70	80	90	100

9. The horizontal loop shows _____.

   (a) counting by fives.

   (b) a row of odd numbers.

   (c) addition is commutative.

10. The vertical loop shows _____.

   (d) a row of odd numbers.

   (e) the multiples of six.

   (f) the sums of the vertical and horizontal addends.

11. The product of 3 x 300 is _____.

   (a) 90 (c) 900

   (b) 600 (d) 6000

P.O. 3.05.06.01 & .03

NAME: _____ CLASS: _____ DATE: _____

Follow the directions below.

Find the quotients and check.

① **solve** $3\overline{)93}$ → 31 **check** 31 × 3 = 93	② $4\overline{)84}$	③ $2\overline{)26}$
④ $2\overline{)40}$	⑤ $2\overline{)46}$	⑥ $3\overline{)63}$
⑦ $8\overline{)80}$	⑧ $2\overline{)24}$	⑨ $3\overline{)33}$
⑩ $3\overline{)39}$	⑪ $7\overline{)77}$	⑫ $2\overline{)48}$

Solve the problems.

44 pennies
2 students
How many pennies for each student?

_____ pennies **solve**

55 pennies
How many nickels?

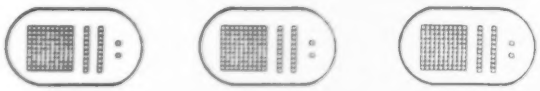
_____ nickels **solve**

P.O. 3.05.06.02-.03

NAME:_____ CLASS:_____ DATE:_____

Follow the directions below.

Look at each group of squared material. Write, solve, and check division examples based upon the groupings of the squared material.

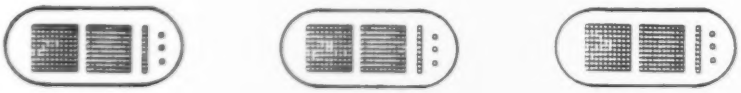


solve

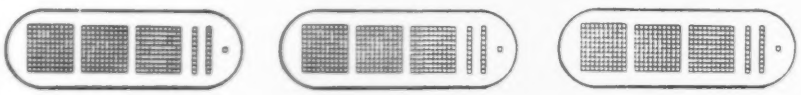
$3\overline{)366}$ 122

check

$122 \times 3 = 366$



solve check



solve check

Solve and check.

$2\overline{)242}$ 121 $121 \times 2 = 242$	$3\overline{)630}$	$5\overline{)555}$
$6\overline{)666}$	$4\overline{)844}$	$2\overline{)862}$

Solve the problem.

solve

226 cars were shipped from Japan to the United States. If 2 ships carried an equal number of cars, how many cars were on each ship?

P.O. 3.05.06.03

NAME: _____ CLASS: _____ DATE: _____

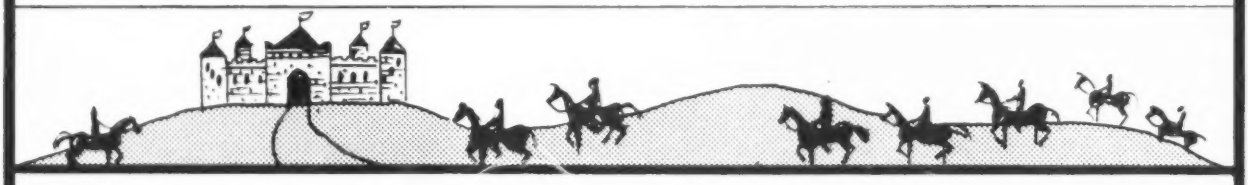
Read each problem. Cross out the sentence which has information which is not needed to solve the problem. Then solve the problem.

1. In the year 1214 Queen Laurette made a party to celebrate King Howard's birthday. She invited 480 people. She used 4 dining rooms. If an equal number of people ate dinner in each room, how many people were in each room? **solve**

2. 3 people, who wore black and white costumes, shared 63 black and white balloons equally. When the party was over, they gave 25 white balloons to the children. How many balloons did each person, in a black and white costume, receive? **solve**

3. At exactly 12 o'clock the guests gathered in the great hall to dance. 246 guests were divided into groups of 2. How many groups of 2 were there? **solve**

4. As the clock struck 2:00 A.M., 212 guests went home. 268 guests stayed for breakfast. These guests shared 2 dining rooms equally. How many guests ate breakfast in each dining room? **solve**



Do you remember?

Circle the numbers which belong in the solution set for each inequality. Then write the solution set.

$\square \times 4 < 24$

1, 2, 3, 4, 5, 6, 7, 8, 9

solution set = { }

P.O. 3.02.06.01,.02 & .06

NAME: _____ CLASS: _____ DATE: _____

Complete the examples and solve the problems below.

Add. Check your work on a separate sheet of paper.

① 2,035 +1,264	② 5,167 +3,332	③ 4,680 +4,226	④ 5,053 +4,636
⑤ 3,456 +1,623	⑥ 2,824 +5,090	⑦ 1,187 +6,219	⑧ 4,635 +4,852

⑨ In the forest behind Bill's house, the third grade students collected 1,062 pine cones 1 week and 1,425 pine cones the second week. How many pine cones did they collect in all?	solve
⑩ Squirrels collect acorns and store them for food in the winter. One squirrel family collected 3,226 acorns. Another squirrel family collected 4,913 acorns. What was the total number of acorns they collected?	solve
⑪ This forest is very large. It has 3,526 pine trees and 2,292 oak trees. How many oak trees and pine trees are there in the forest?	solve
⑫ During 2 years many pine trees were cut down to be used as Christmas trees. 1,280 trees were cut down the first year. 1,495 trees were cut cut down the second year. How many trees were cut down during both years?	solve

P.O. 3.02.06.02-.04 & .06

NAME:_____ CLASS:_____ DATE:_____

Use the chart to answer the questions below.

Sam's Trip Around the World		
From	To	Distance in Miles
New York	London	3,459
London	Istanbul	1,551
Istanbul	Moscow	1,088
Moscow	Bombay	3,131
Bombay	Singapore	2,429
Singapore	Tokyo	3,304
Tokyo	San Francisco	5,031
San Francisco	New York	2,571

1. How many miles did Sam travel to go from New York to Istanbul?

   solve check

2. How many miles did Sam fly from London to Bombay?

   solve check

3. How far did Sam fly in traveling from Tokyo to New York?

   solve check

4. The distance from Moscow to Tokyo is 8,864 miles. If Sam travels from Istanbul to Tokyo, how far will he travel?

   solve check

CHALLENGE!

What is the total distance of Sam's trip around the world?

_____

P.O. 3.02.06.05-.06

NAME:_____ CLASS:_____ DATE:_____

Follow the directions below.

Rewrite each example in vertical format, solve, and check.	
29 + 236 + 1,445 + 89 = ☐	4,426 + 319 + 203 +60 = ☐
5,828 + 3,113 + 47 + 614 = ☐	217 + 163 + 880 + 1,234 = ☐
209 + 6 + 813 + 4,025 = ☐	16 + 88 + 1,437 + 2,194 = ☐

Solve the problem. **solve**

On the 2nd floor in 1 building in New York City there are 4 apartments. Mr. Williams has 2,006 books in his apartment. Mrs. Brown has 275 books in her apartment. The Smith family has 1,432 books. Jan and Mike Carlton have 85 books. How many books are there on the 2nd floor of this New York City building?

_____

SHARPENING YOUR SKILLS

Units 59,60

Name: _____ **Class:** _____ **Date:** _____

Fill in the circle next to each correct answer for questions 1-4.

1.
$$\begin{array}{r} 2{,}643 \\ +3{,}780 \\ \hline \end{array}$$

(a) 1,143 (c) 6,423

(b) 6,433 (d) 5,423

2. 62 + 108 + 4,632 + 40 = ☐

(e) 4,732 (g) 4,742

(f) 471,312 (h) 4,842

3. $3\overline{)669}$

(a) 323 (c) 223

(b) 233 (d) 322

4. $2\overline{)86}$

(e) 43 (g) 403

(f) 34 (h) Not Here

5. There was a 4-day show at the Museum of Modern Art. The attendance on Sunday was 1,362 people, on Monday, 2,160 people, on Tuesday, 945 people, and on Thursday, 1,607 people. The museum is closed on Wednesday. How many people saw the show during the 4 days?

solve

6. 3 schools sent a total of 696 students to see the show. If each school sent an equal number of students, how many students were there from each school?

solve

Cross out the information that is not needed to solve the problem.

7. During the 4 days 484 people were at lunch in the museum cafeteria between 12 and 1 o'clock. If 4 people were seated at each table, how many tables were used?

P.O. 3.03.06.01-.03

NAME: _____ CLASS: _____ DATE: _____

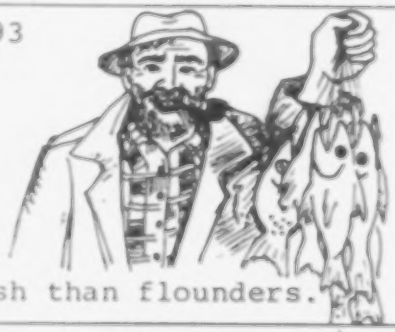
Follow the directions below.

Complete each example and check. Circle the examples which required regrouping.

4,853 -2,636 check	6,528 -3,164 check
9,249 -4,025 check	8,662 -5,435 check
7,168 -2,840 check	4,559 -2,326 check

Solve the problems.

7. Captain Joe caught 5,293 flounders and 7,618 bluefish during the month of July. How many more bluefish did he catch? solve



He caught _____ more bluefish than flounders.

8. In 1985 Captain Joe counted 6,085 speedboats in Jamaica Bay. In 1986 he counted 3,024 speedboats. What is the difference in the number of speedboats he counted? solve

The difference in the number of speedboats is _____.

P.O. 3.03.06.01-.04

NAME: _____ CLASS: _____ DATE: _____

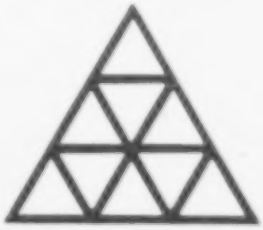
Follow the directions below.

Complete each example and check. Circle the examples which do not need regrouping.

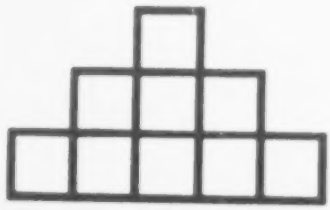
1. check 6,842 -2,606	2. check 9,413 -6,265
3. check 3,466 -2,145	4. check 5,382 -2,946
5. check 5,078 -3,021	6. check 4,218 -2,652
7. check 8,272 -5,585	8. check 2,521 -1,634

CHALLENGE!

How many triangles do you see?
I see _____ triangles.



How many squares do you see?
I see _____ squares.



P.O. 3.03.06.04-.06

NAME: _____ CLASS: _____ DATE: _____

Follow the directions below.

Solve each example. Check your answer on a separate sheet. Write the letter of each example above the answer to complete the message.

8,427 -5,678 [ ] E	4,000 -2,356 [ ] M	8,000 -6,584 [ ] H	3,621 -1,853 [ ] I
3,562 -1,899 [ ] A	7,435 -5,698 [ ] S	4,424 -2,686 [ ] U	9,000 -6,536 [ ] N
	5,000 -2,987 [ ] G	7,462 -2,689 [ ] T	

	1,644	1,663	4,773	1,416	
2,013	2,749	2,464	1,768	1,738	1,737

Use the information below to write a question for a subtraction problem. Solve the problem.

solve

Sam has 6,000 stamps in his album.
Ted has 3,845 stamps in his album.

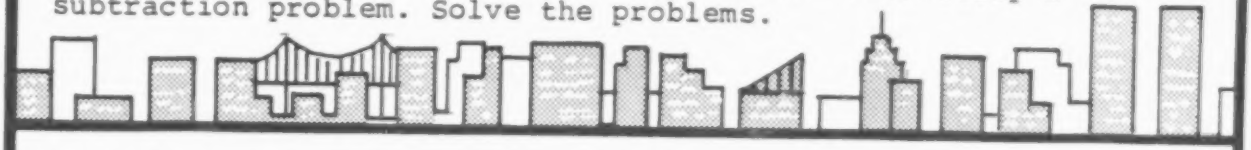
Question: _____

P.O. 3.03.06.06

NAME: _____ CLASS: _____ DATE: _____

Follow the directions below.

Draw a ring around the question which makes each story a subtraction problem. Solve the problems.



1. 6,000 people visited the United Nations during December. 4,285 people visited the United Nations during January.

A. How many people visited the United Nations during December and January?

B. How many more people visited the United Nations in December than in January?

solve

6,000
− 4,285

___ more people visited the United Nations in December than in January.

2. A building on Fifth Avenue in Manhattan has 2,344 offices. Around the corner, on the Avenue of the Americas, there is a building with 4,122 offices.

A. What is the difference in the number of offices in the two buildings?

B. What is the total number of offices?

solve

3. When the circus performed in Madison Square Garden, 9,500 hot dogs were ordered. 7,885 hot dogs were sold.

A. How many hot dogs were not sold?

B. How many hot dogs were ordered and sold?

solve

P.O. 3.10.08.01-.02

NAME: _____ CLASS: _____ DATE: _____

Follow the directions below.

Complete each sentence.

1. If the length of a table is 1 meter, it is _____ decimeters long.
2. The distance from Main St. and Elm St. to Broadway and Elm St. is 1,000 meters or _____ kilometer.
3. A dime is about the thickness of one-tenth of a centimeter or _____ millimeter.
4. A meter equals _____ centimeters.

Choose the most reasonable measurement.

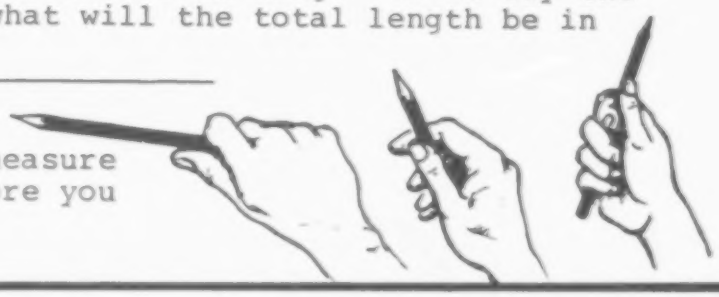
5.	width of a greenbean	a. 1 mm	b. 1 cm	c. 1 m
6.	width of a student's desk	a. 1 km	b. 1 cm	c. 1 m
7.	height of a boy	a. 1 cm	b. 1 m	c. 1 mm
8.	length of a pencil	a. 1 mm	b. 1 dm	c. 1 km

Solve this problem.

Kathy's pencil is 16 cm long. Samantha's pencil is 100 mm long. Charlotte's pencil is 2 dm long. If we lay the pencils end to end, what will the total length be in centimeters?

_____

Hint: The units of measure must be the same before you can find the total.



CHALLENGE!

A snail moved 100 centimeters in 2 hours.

How many centimeters might he move in 3 hours? _____

How many centimeters might he move in 4 hours? _____

How many meters might he move in 4 hours? _____

How many meters might he move in 6 hours? _____

SHARPENING YOUR SKILLS

Units 61,62

Name:_____ Class:_____ Date:____

For questions 1-4, subtract and check.

1. check

$$\begin{array}{r} 9{,}672 \\ -2{,}361 \end{array}$$

2. check

$$\begin{array}{r} 8{,}763 \\ -1{,}248 \end{array}$$

3. check

$$\begin{array}{r} 7{,}945 \\ -2{,}379 \end{array}$$

4. check

$$\begin{array}{r} 5{,}000 \\ -2{,}471 \end{array}$$

5. Find the difference. Check.

6,437 - 1,204 = ☐

6. Choose the correct answer.

$$\begin{array}{r} 8{,}723 \\ -2{,}586 \end{array}$$

(a) 11,309 (c) 6,237

(b) 6,263 (d) 6,137

7. Choose the correct answer.

$$\begin{array}{r} 8{,}345 \\ -2{,}897 \end{array}$$

(e) 6,552 (g) 5,448

(f) 6,448 (h) Not Here

8. Last month the Hamburger Palace sold 6,687 hamburgers. This month the Palace sold 8,341 hamburgers. How many more hamburgers did they sell this month than last month?

They sold _____ more hamburgers this month.

For questions 9 - 11, circle the correct answer in each sentence.

9. A millimeter is (greater, less) than a centimeter.

10. A millimeter is (one-tenth, one-half) of a centimeter.

11. An abbreviation for millimeter is (m, mm, cm).

12. One meter equals __ centimeters.

A meter equals ___ millimeters.

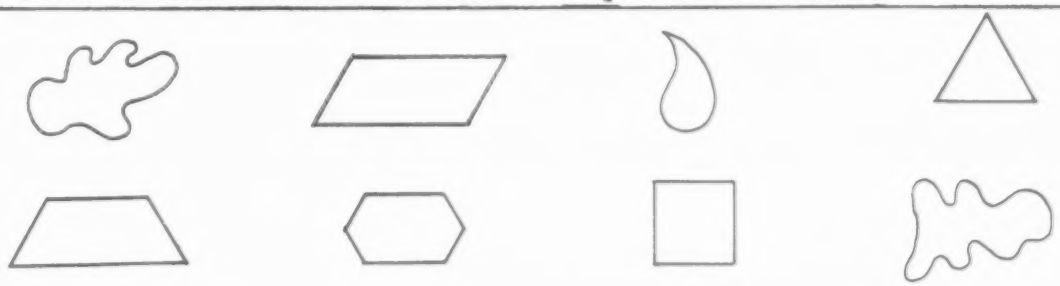
A kilometer equals 1000 _____.

P.O. 3.09.06.01 - .03

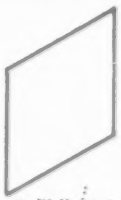
NAME: _____ CLASS: _____ DATE: _____

Follow the directions below.

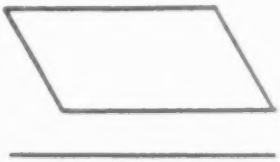
1. Here is a group of simple closed curves.
   Color the polygons red.
   Draw a blue circle around the quadrilaterals.

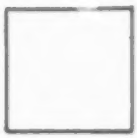


2. Name each quadrilateral.
   Color the square red.
   Color the rectangle yellow.
   Color the trapezoid blue.
   Color the rhombus orange.
   Color the parallelogram green.

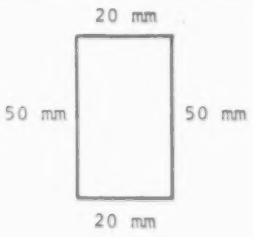


rhombus

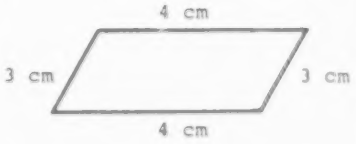




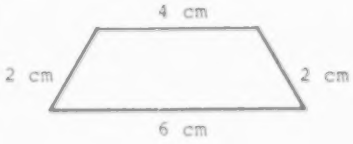
3. Find the perimeter for each quadrilateral.



P = 140mm



P = _____



P = _____

P.O. 3.13.04.01-.02

NAME:_____ CLASS:_____ DATE:_____

Answer the questions below.

This is Sam's money.

This is Sandra's money.

1. Who has more coins? _____ has more coins.
2. Who's money has less value? _____ money has less value.
3. What is the difference in the amount of money that Sam and Sandra have? The difference is _____.
4. What is the value of the money that Sam and Sandra have together? Sam and Sandra have _____ together.
5. What is the value of Sam's and Sandra's dimes? The dimes are worth _____ cents.

Sandra paid 45¢ for a Granny Smith apple. On the chart below, show some of the combinations of coins that Sandra could have used to pay for the apple. The first one is done for you.

quarters	0					
dimes	4					
nickels	0					
pennies	5					
total	45					

P.O. 3.13.04.03

NAME: _____ CLASS: _____ DATE: _____

Follow the directions below.

Games Won by Teams in the "A" League

	Hawks	Eagles	Bears	Panthers
December	4	6	6	7
January	4	2	6	9
February	8	5	5	3
Total	16	13	17	19

Use the chart to answer each question.

Question: Which team won the most games in February?

Answer: _____

Question: How many fewer games did the Eagles win than the Panthers in January?

Answer: _____

Question: What was the total number of games played in December?

Answer: _____

Use the chart above to make up your own questions and answers.

Question: _____

Answer: _____

Question: _____

Answer: _____

Question: _____

Answer: _____

SHARPENING YOUR SKILLS

Units 63,64

Name:_____ Class:_____ Date:____

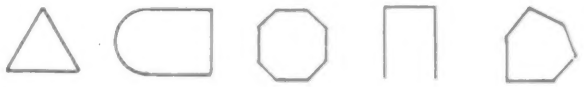
1. Use words from the box to complete each sentence.

curved	edge	solid
plane	corner	straight

A polygon is a _____ figure.

Each pair of sides in a polygon meets at a _____ .

2. Circle the figures below which are polygons.

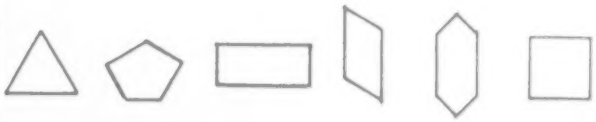


3. Use the words in the box to complete the sentence.

five	polygon	vertices
solid	pentagon	four

A quadrilateral is a _____ with _____ sides and four _____.

4. Circle the quadrilaterals.



5. The perimeter of a quadrilateral is _____.

(a) the difference between its length and width.

(b) the sum of the lengths of its sides.

(c) The line which divides it into equal parts.

6. Ken is making a triangle of buttons. The first row has 1 button. The second row has 2 buttons. The third row has 3 buttons. If he continues this way, how many buttons will there be in the 6th row?

There will be _____ buttons in the 6th row.

7. Which question below cannot be answered from the information shown on the chart?

Team	Games Won	Games Lost	Games Played
Mets	60	15	75
Cardinals	56	21	77
Pirates	55	20	75
Astros	52	25	77

(d) How many games did the Mets play?

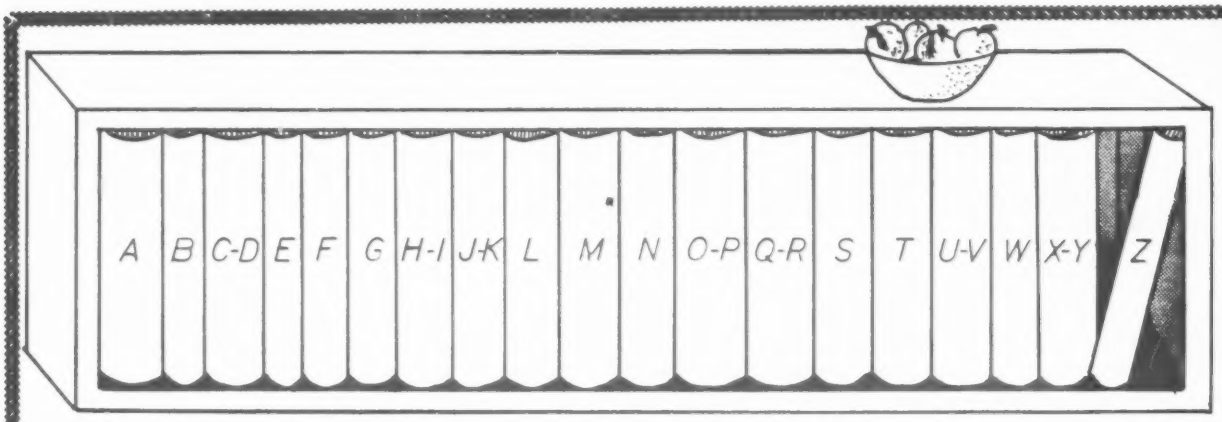
(e) How many more games did the Cardinals win than the Pirates?

(f) How many times did the Pirates play the Mets?

P.O. 3.01.07.01

NAME: _____ CLASS: _____ DATE: _____

Use the encyclopedia to practice using ordinal numbers.



1. The letters on the thirteenth volume from the left are _____.

2. The letters on the seventeenth volume from the right are _____.

3. The letters on the second, fourth, ninth and fifteenth volumes spell _____.

4. The letters on the tenth and twelfth volumes spell _____.

5. The volumes which each have two letters are the third, _____, _____, _____, _____, _____ and eighteenth volumes.

6. The nineteenth volume from the left has letter _____ on it.

7. The nineteenth volume from the right has letter _____ on it.

8. You can probably read about President Ronald Reagan in the _____ and _____ volumes from the left.

1. The second object from the left is a house. 2nd
2. The _____ object from the right is a book. _____
3. The eighth object from the right is a _____. _____
4. The _____ object from the left is a moon. _____
5. The twelfth object from the _____ is a happy face. _____
6. The fifth object from the right is a _____. _____
7. The _____ object from the left is a box. _____
8. The tree is the _____ object from the right. _____
9. The candle is the _____ object from the left. _____
10. The sun is the _____ object from the left. _____

Do you remember? solve

Farmer Smith has 3 apple orchards. Each orchard has 231 apple trees. How many trees are in Farmer Smith's orchards?

P.O. 3.01.07.02 - .03

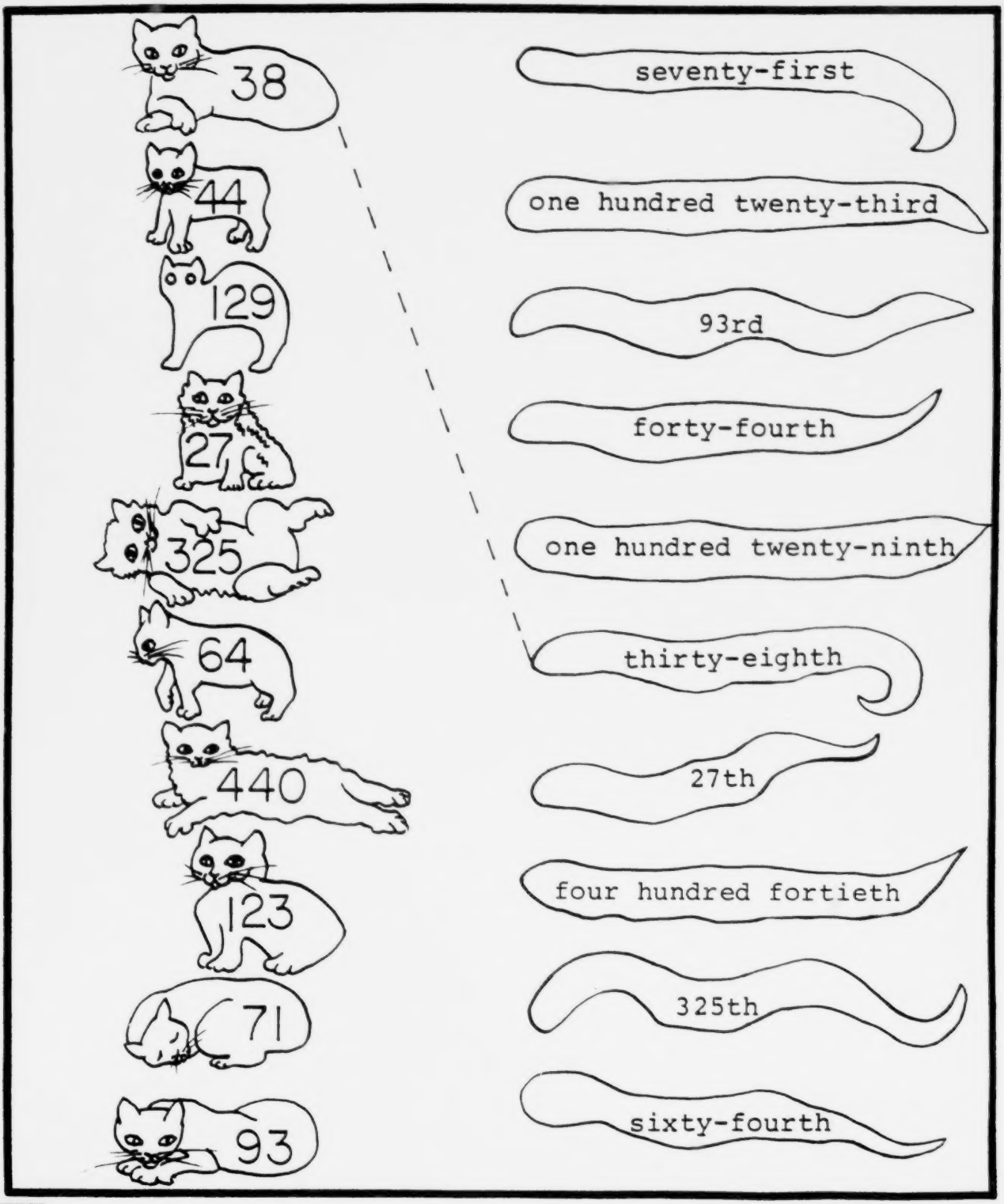
NAME: _____ CLASS: _____ DATE: _____

Complete the sentences below. Write the matching ordinal number in the column on the right.

P.O. 3.01.07.03

NAME: _____ CLASS: _____ DATE: _____

Connect each cat to its tail by drawing a line from each cardinal number to its matching ordinal number.



P.O. 3.14.03.02

NAME:_____ CLASS:_____ DATE:_____

Answer the questions below.

1 cup

1 pint

1 quart

1. Which container holds exactly 2 cups?

pint quart

2. Which container holds less than a pint?

cup quart

3. Which container holds more than a pint?

cup quart

4. Which container holds 2 pints?

cup quart

5. Which container holds 4 cups?

pint quart

Solve the problem:

Jamie drank 1 cup of juice.
Bob drank 1 pint of juice.
Sarah drank 2 cups of juice.
Carla drank 3 cups of juice.

Together they drank _____ cups or

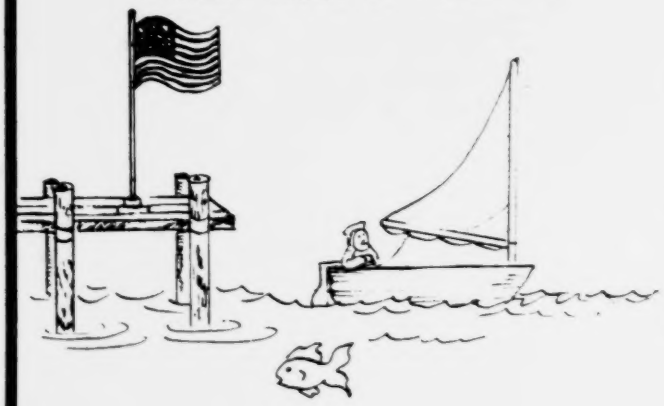
_____pints or _____quarts.

P.O. 3.01.08.01

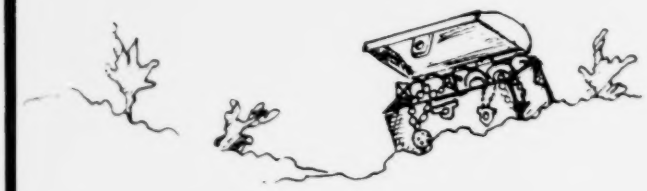
NAME:_____ CLASS:_____ DATE:_____

Follow the directions below.

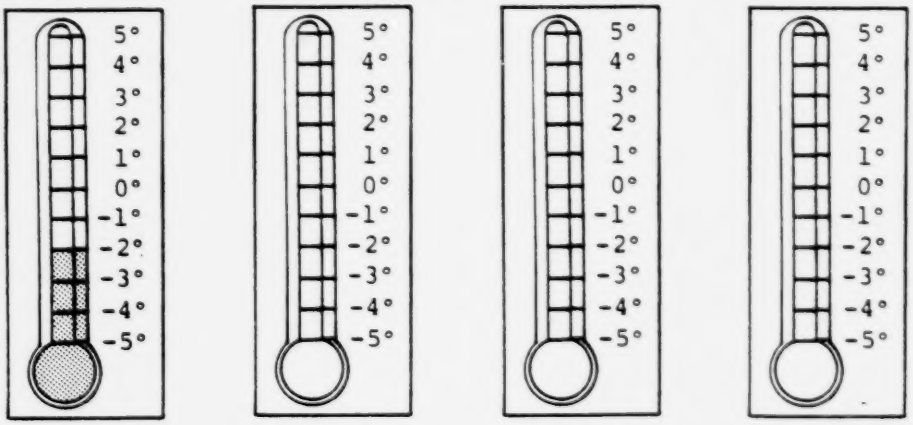
Look at the picture. Complete the sentences by circling the correct words or numbers.



1. The sailboat is (at, above, below) sea-level.
2. The flag is flying (above, below) sea-level.
3. An (odd, even, negative) number would best describe the fish 2 feet below sea-level.
4. The sunken chest is 10 feet below sea-level. Therefore, it is (0, 10, -10).



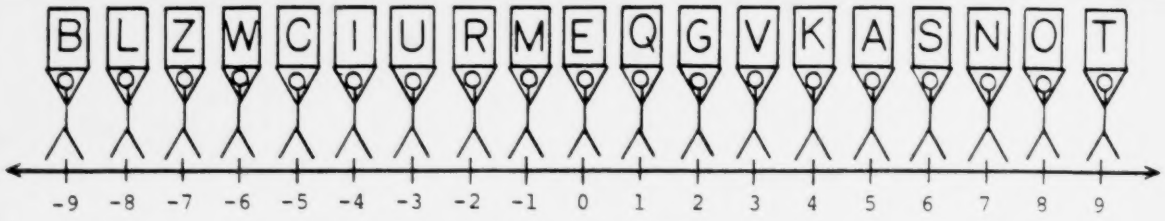
Read the temperature below each thermometer. Color in each thermometer to show the temperature. The first one is done for you.



P.O. 3.01.08.02

NAME: _____ CLASS: _____ DATE: _____

Solve the word puzzle by placing the students' letter cards in the correct boxes below.



Word Puzzle

□□ □□□ □□□□□□□□

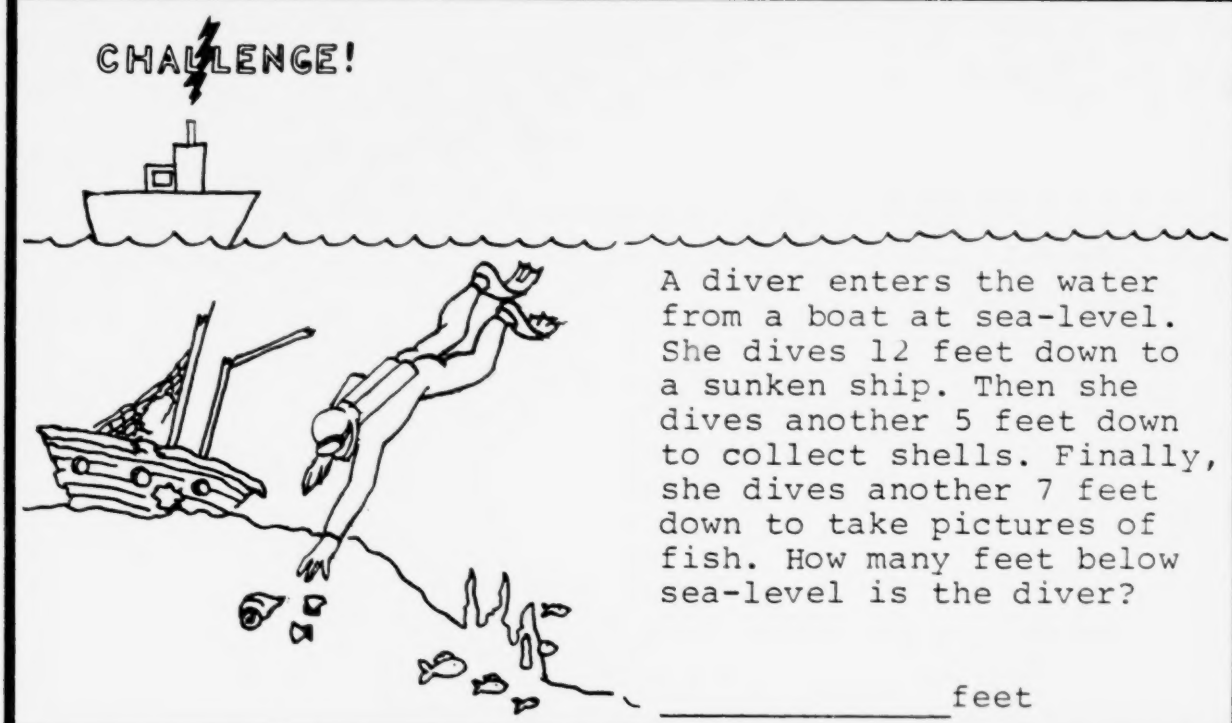
-6 0 5 -2 0 -8 0 5 -2 7 -4 7 2

□□□□□

5 -9 8 -3 9

□□□□□□□□ □□□□□□□

7 0 2 5 9 -4 3 0 7 -3 -1 -9 0 -2 6



A diver enters the water from a boat at sea-level. She dives 12 feet down to a sunken ship. Then she dives another 5 feet down to collect shells. Finally, she dives another 7 feet down to take pictures of fish. How many feet below sea-level is the diver?

_____ feet

SHARPENING YOUR SKILLS

Units 65,66,67

Name:_____ **Class:**_____ **Date:**____

① Help Forgetful Freddie remember. Fill in the blanks.

1 pint = _____ cups 2 pints = 1 _____ 4 cups = 2 _____

4 cups = 1 _____ 8 cups = _____ quarts 1 quart = _____ pints

② Which ▲ is circled?

▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲ (▲) ▲▲

(a) first (c) twentieth

(b) eighteenth (d) seventeenth

③ Write the ordinal number for each cardinal number below.

12 _____

4 _____

73 _____

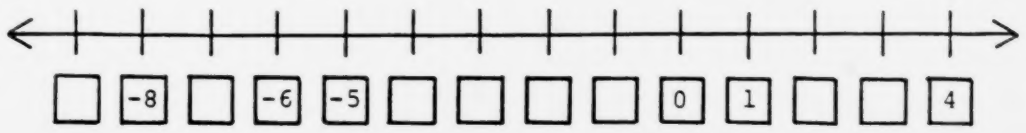
45 _____

④ How many pints equal 2 quarts?

(e) 1 (g) 4

(f) 2 (h) 8

⑤ Complete the number line.



⑥ Write the numbers which represent the following:

(a) seven degrees below zero _____

(b) three floors below ground level _____

(c) five floors above ground level _____

(d) the number to the left of -2 on the number line_____

⑦ Write the ordinal numbers which come before and after each number below.

41st 42nd 43rd

_____ 125th _____

_____ 351st _____

P.O. 3.01.09.01

NAME: _____ CLASS: _____ DATE: _____

Follow the directions below.

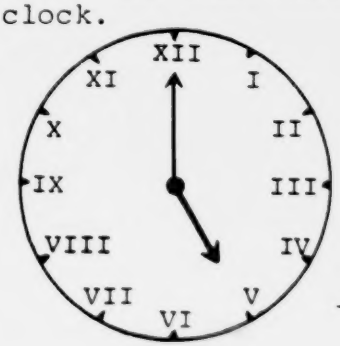
Change each Arabic numeral to a Roman numeral.

27 = XXVII	6 = _____	25 = _____
39 = _____	32 = _____	16 = _____
18 = _____	20 = _____	11 = _____
12 = _____	36 = _____	8 = _____

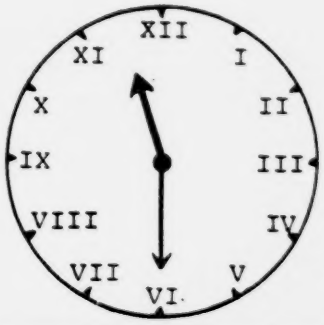
Change each Roman numeral to an Arabic numeral.

VII = 7	XXXIII = _____	III = _____
XVII = _____	XV = _____	VIII = _____
XXVII = _____	XXXV = _____	XIV = _____
XXXVII = _____	XXII = _____	XIX = _____

Write the time shown on each clock.



_____



_____

What chapter is each student reading?

Billy is reading chapter _____.

Mary is reading chapter _____.

P.O. 3.01.09.02

NAME: _____ CLASS: _____ DATE: _____

Solve the problems below. Write the answers in Arabic numerals.

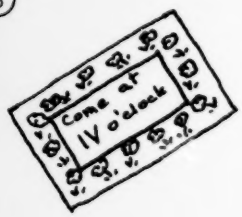
1.

This clock shows the time that Sarah began her homework. She will spend a total of 2 hours on her homework. What time will Sarah finish her homework?

_____ o'clock

2.

Jessie is reading chapter XXXV of her book.
What chapter came before this one?
Chapter _____ came before this one.
What is the number of the next one?
The next chapter is chapter_____.

3. 

Jenny sent a message to some of her friends. It said: Come to my house at IV o'clock. I have invited XXXVI boys and girls.
At what time should they meet?
They should meet at _____ o'clock.
How many children will be there?
There will be _____boys and girls.

4.

A long time ago, in the year, XXXVIII, a man fell off a camel, the camel ran away, and the man walked XIV miles in the desert before finding water.
In what year did he fall off the camel?
He fell off the camel in the year, _____.
How many miles did he walk?
He walked _____ miles.

Do you remember?

solve **check**

Each number is 1,802 less than the number before it.
Find the missing numbers.

8,212, 6,410, _____,

_____, 1,004

P.O. 3.10.09.01 - .02

NAME: _____ CLASS: _____ DATE: _____

Follow the directions below.

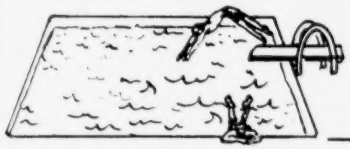
For each sentence below, fill in the blanks.

1 liter = _____ deciliters. 1 liter = 100 _____.

1 kiloliter = 1,000 _____. 1 _____ = 1,000 milliliters.

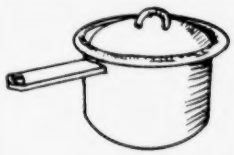
Write the name of the unit you would use to measure the capacity of each item below: milliliter, centiliter, liter, or kiloliter.

_____



_____

_____

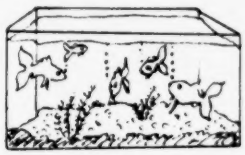


_____

_____

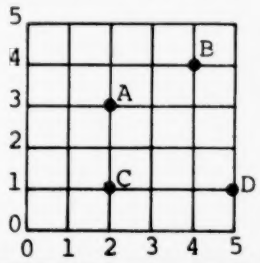
_____

_____



_____

Do you remember?



Ordered Pairs

Point A is at (2 , 3).

Point B is at (,).

Point C is at (,).

Point D is at (,).

P.O. 3.04.11.01&.03

NAME: _____ CLASS: _____ DATE: _____

Complete the examples and solve the problems below.
Use the partial product method.

① 643 x 7

21 (7 x 3)
280 (7 x 40)
+ 4200 (7 x 600)
4,501

② 298 x 4

_____ ( )
_____ ( )
+ _____ ( )
_____

③ 45 x 6

_____ ( )
+ _____ ( )
_____

④ 437 x 9

_____ ( )
_____ ( )
+ _____ ( )
_____

⑤ 68 x 3

_____ ( )
+ _____ ( )
_____

⑥ 827 x 5

_____ ( )
_____ ( )
+ _____ ( )
_____

⑦ The Madison Avenue Newsstand received a delivery of 7 different magazines. There were 144 copies of each magazine. How many magazines were delivered?

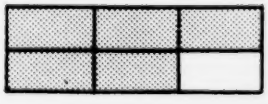
_____ magazines were delivered.

⑧ The newsstand sells soft drinks in 5 different flavors. 225 cans of each flavor were delivered. How many cans were delivered?

_____ cans were delivered.

Do you remember?

What fraction is represented by the shaded parts in each picture?



_____

_____

_____

P.O. 3.04.11.02&.03

NAME: _____ CLASS: _____ DATE: _____

Complete the examples and solve the problems below.
Use the regrouping method.

① 1 1 668 x 2 1,336	② 63 x 9 .	③ 235 x 8
④ 368 x 6 	⑤ 97 x 5 	⑥ 184 x 7
⑦ 419 x 3 	⑧ 537 x 6 	⑨ 85 x 4

⑩ The newspaper delivery truck delivers to 87 newsstands. Each newsstand receives 5 bundles of newspapers. How many bundles of newspapers does the truck have before its first delivery?

The truck has _____ bundles of newspapers before its first delivery.

⑪ Each of the 87 newsstands has 2 workers who work from 6:00 A.M. to 2:00 P.M.. During these 8 hours, how many people work at 87 newsstands?

There are _____ workers in all.

P.O. 3.04.11.03

NAME: _____ CLASS: _____ DATE: _____

Solve the problems below.

Anne and Stephen Cohen both had colds. Their colds lasted for several days.

① Anne and Stephen used 4 boxes of tissues. There were 250 tissues in each box. How many tissues did they use in all?

They used _____ tissues in all.

② Anne took 25 milliliters of medicine each day for 7 days. How much medicine did Anne take in all?

She took _____ milliliters of medicine.

③ Stephen needed a lot of sleep. During the 7 days of his illness he slept 12 hours each day. How many hours did he sleep in 7 days?

He slept _____ hours in 7 days.

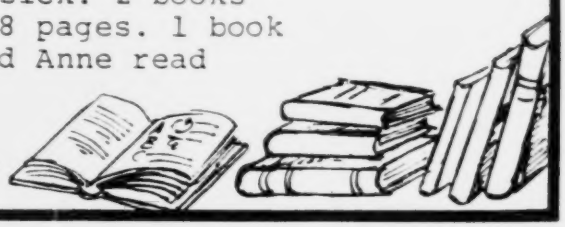
④ When they weren't sleeping, Anne and Stephen spent 45 minutes each day playing games. They did this for 5 days. For how many minutes during the 5 days did they play games?

They spent _____ minutes playing games.

CHALLENGE!

Anne read 4 books while she was sick. 2 books had 46 pages each. 1 book had 118 pages. 1 book had 167 pages. How many pages did Anne read in all?

Anne read _____ pages in all.



SHARPENING YOUR SKILLS

Units 68,69,70

Name:_____ **Class:**_____ **Date:**____

1. Write the Roman numeral next to the Arabic numeral.

13 XIII	20 _____	26 _____	32 _____
15 _____	19 _____	24 _____	35 _____
16 _____	23 _____	30 _____	34 _____
14 _____	25 _____	29 _____	39 _____

2. Brenda is reading a book which has XXXIV chapters. She just finished reading chapter XIX. How many more chapters must she read to complete the book? _____

3. Circle the unit of measure that you would expect to find on each container.

liter milliliter

liter milliliter

liter milliliter

4. This is a one liter container. How many milliliters can it hold?

(a) 10 milliliters
(b) 100 milliliters
(c) 1,000 milliliters

5. A pool is filled with 1,000 liters of water. How many kiloliters of water is that?

(d) 1 kiloliter
(e) 10 kiloliters
(f) 1,000 kiloliters

6.

$$\begin{array}{r} 67 \\ \times\ 3 \\ \hline ___ \ (3 \times 7) \\ +\ ___ \ (3 \times 60) \\ \hline ____ \end{array}$$

☐

8.

$$\begin{array}{r} 516 \\ \times\ 7 \\ \hline \end{array}$$

7.

$$\begin{array}{r} 463 \\ \times\ 8 \\ \hline ___ \ (8 \times 3) \\ ___ \ (8 \times 60) \\ +\ ___ \ (8 \times 400) \\ \hline ____ \end{array}$$

☐

9. Our school received a delivery of 253 boxes of crayons. Each box has 8 crayons. How many crayons did we receive?

We received _____ crayons.

P.O. 3.05.07.01-.02

NAME:_____ CLASS:_____ DATE:_____

Follow the directions below.

Solve and check each example.

① $8\overline{)78}$	check	② $6\overline{)57}$	check
③ $2\overline{)17}$	check	④ $5\overline{)29}$	check

Solve each problem.

⑤ 13 children went to the movies. Each ticket admitted 2 children. How many tickets were needed?

_____tickets were needed.

⑥ The theater sold gumballs in boxes of 40. If 6 children shared a box of gumballs, how many would each child get? How many would be left over?

Each child would get _____gumballs.

_____would be left over.

⑦ There were 7 seats in each row. There were 59 people in the theater. How many rows could they fill? How many people would be in an unfilled row?

They could fill_____ rows.

There would be _____ people in an unfilled row.

⑧ The film was 85 minutes long. It contained cartoons, each 9 minutes long, except the last one. How many 9-minute cartoons were there? How long was the last cartoon?

There were _____ 9-minute cartoons.

The last one was_____ minutes long.

SHARPENING YOUR SKILLS

Units 70,71

Name:_____ **Class:**_____ **Date:**_____

Multiply. Use either the partial product method or the short method. Choose the correct answer.

1. 67 x 4	2. 428 x 6	3. 169 x 3	4. 288 x 2
(a) 248	(e) 1,248	(a) 4,827	(e) 576
(b) 268	(f) 2,428	(b) 507	(f) 510
(c) 2,428	(g) 2,568	(c) 307	(g) 5,616
(d) Not Here	(h) Not Here	(d) Not Here	(h) Not Here

5. Mrs. Kay took 34 students to the beach. She asked each of them to collect at least 8 scallop shells. What is the least number of shells they collected?

They collected at least _____ shells.

6. Sally's picture of the beach won first prize. 18 classmates each gave her scallop shells to decorate the picture frame. How many scallop shells did she use?

She used ____ scallop shells.

Divide.

7. $6\overline{)39}$	8. $7\overline{)65}$	9. $8\overline{)70}$	10. $5\overline{)43}$

11. 35 students from Mrs. Kay's class ate red snapper for lunch. Each snapper fed 4 people. How many snappers were needed?

____ snappers were needed.

12. 22 students collected starfish in buckets. 4 students shared each bucket. How many buckets were needed?

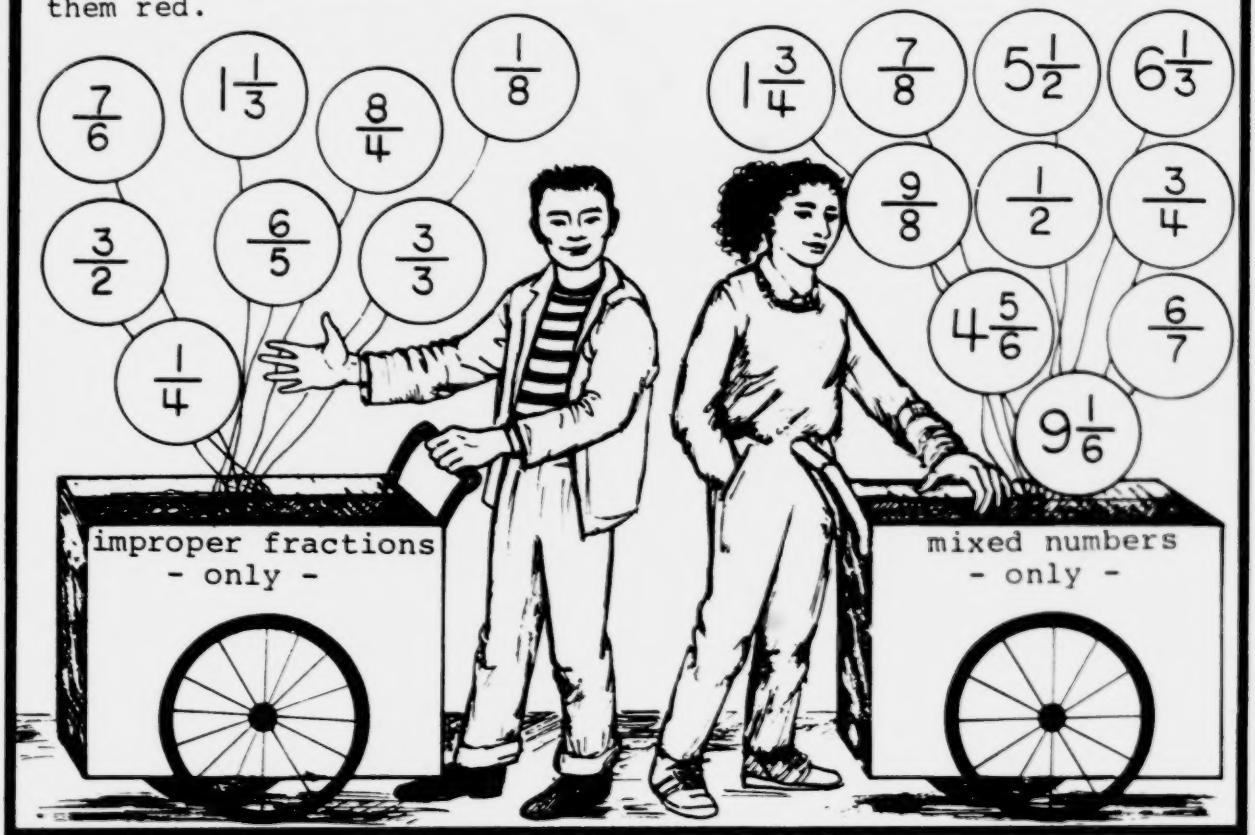
____ buckets were needed.

P.O. 3.06.04.01&.02

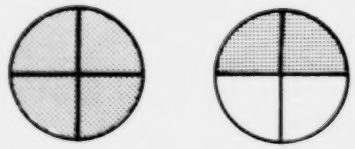
NAME: _____ CLASS: _____ DATE: _____

Follow the directions below.

"Pop" the balloons which do not belong in the wagons by coloring them red.

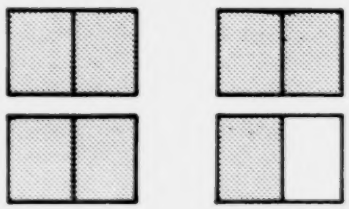


Write an improper fraction and a mixed number for each group.



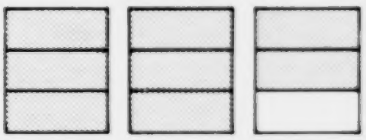
improper fraction ☐

mixed number ☐



improper fraction ☐

mixed number ☐



improper fraction ☐

mixed number ☐

P.O. 3.06.04.01&.02

NAME: _____ CLASS: _____ DATE: _____

Follow the directions below.

This Little League team got new team shirts. The numbers on their shirts are either improper fractions or mixed numbers.

Bob Nancy Cal Rubin Pam Sally Hank Felicia Sam Kurt Paul Judy

The names of the team members who have shirts with improper fractions are:

_____

The names of the team members who have shirts with mixed numbers are:

_____

Use the words in the word box to complete the sentences.

greater	fraction	numerator
less	whole	denominator

The _____ of an improper fraction is greater than or equal to the _____.

A mixed number has a _____ number and a fraction.

The numerator of a proper fraction is _____ than the denominator.

Do you remember?

The circle is third from the right.

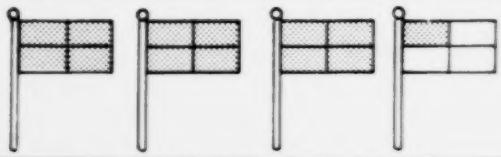
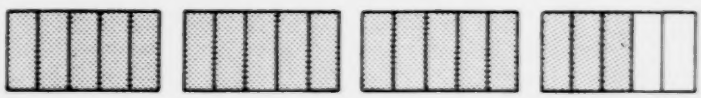
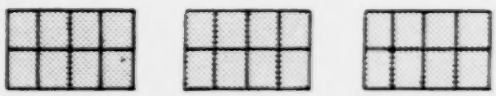
The parallelogram is _____ from the right.

The square is _____ from the left.

P.O. 3.06.04.03

NAME: _____ CLASS: _____ DATE: _____

Write the improper fraction represented by each drawing. Change the improper fraction to a mixed or a whole number.

	improper fraction	mixed or whole number
1.	$\frac{9}{2}$	$4\frac{1}{2}$
2. 		
3.		
4. 		
5.		
6. 		

Do you remember? solve check

In the morning an ant traveled 2,070 mm. In the afternoon the ant slowed down and traveled 1,065 mm. How much farther did the ant travel in the morning?

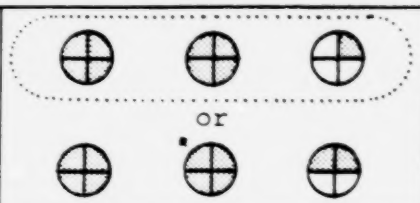
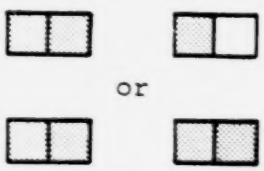
_____ mm

P.O. 3.06.04.04

NAME: _____ CLASS: _____ DATE: _____

Follow the directions below.

Circle the picture which illustrates each mixed number or whole number. Write an improper fraction for each circled picture.

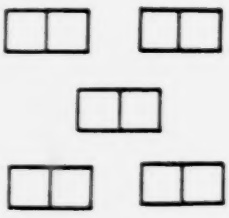
1. $2\frac{1}{4}$		improper fraction $\frac{9}{4}$
2. $1\frac{1}{2}$		
3. 4		
4. $2\frac{2}{3}$		

Fill in all or part of each drawing to illustrate the mixed or whole number. Write the improper fraction for each.

(A) $2\frac{1}{3}$

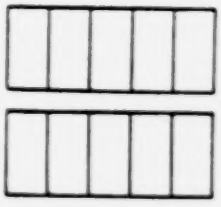
$2\frac{1}{3} = \frac{7}{3}$

(B) 5



$5 = \square$

(C) $1\frac{3}{5}$



$1\frac{3}{5} = \square$

P.O. 3.06.05.01.

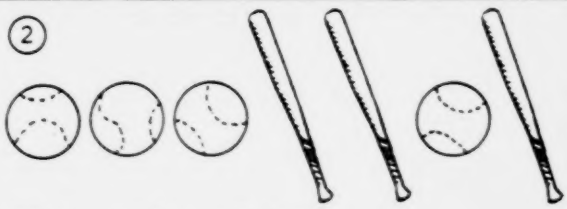
NAME: _____ CLASS: _____ DATE: _____

Follow the directions below.

Write a ratio for each picture.

①

The ratio of stars to waves is 3 to 2.

② 

The ratio of bats to baseballs is _____ to _____.

③

The ratio of cups to saucers is _____ to _____.

④ 2 S M L 6 R B 3 D P

The ratio of letters to numbers is _____ to _____.

Write a fraction to name each ratio.

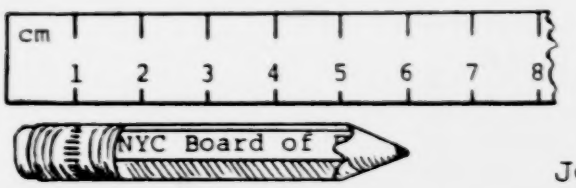
⑤ 7 Mets to 4 Yankees
The ratio of Mets to Yankees = $\frac{7}{4}$.

⑥ 9 dogs to 10 cats
The ratio of dogs to cats = _____.

⑦ 4 chairs to 1 table
The ratio of chairs to tables = _____

⑧ 8 wheels to 2 cars
The ratio of wheels to cars = _____

Do you remember?



This ruler measures centimeters. How many millimeters long is Joe's pencil?

Joe's pencil is _____ mm long.

P.O. 3.06.05.02

NAME: _____ CLASS: _____ DATE: _____

Solve the problems below.

① There were 30 children expected at the picnic. 24 of them attended. What is the ratio of children who attended to the number of children expected?

The ratio is _____ to _____.

② The ratio of boys to girls at the school picnic was $\frac{11}{13}$. How many children attended the picnic in all?

_____ students attended the picnic.

③ It was a chilly day for a picnic. All the children wore sweaters. Eight wore red sweaters. Six wore white sweaters. What fraction shows the ratio of red sweaters to white sweaters?

_____

④ Twenty-four students shared 6 containers of juice. What is the ratio of students to containers of juice?

_____

How many students shared each container of juice?

_____

CHALLENGE!

Attendance	Attendance	Attendance
Boys 14	Boys 6	Boys 10
Girls 11	Girls 13	Girls 10
Room 101	Room 102	Room 103

These charts show the attendance for each of three third-grade classes. What is the ratio of boys to girls who attended school in the third grade?

The ratio of boys to girls is _____.

Use the information on these charts to write your own story problems.

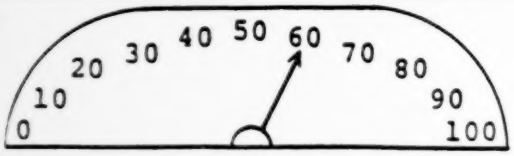
P.O. 3.10.10.01-.03

NAME: _____ CLASS: _____ DATE: _____

Follow the directions below.

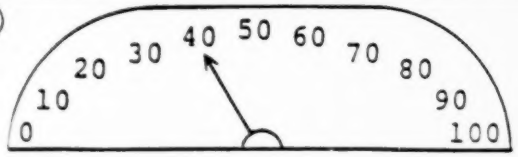
What is the rate of speed shown on each speedometer?

(A)



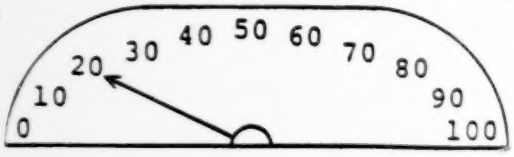
Rate = 60mph

(B)



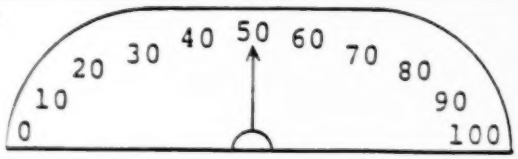
Rate = _____

(C)



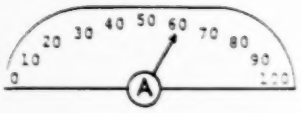
Rate = _____

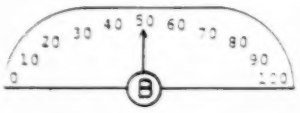
(D)

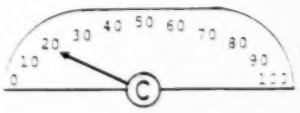


Rate = _____

Look at the speed limit sign. Answer the questions.







Which car is traveling faster than the speed limit? _____

Which car is traveling slower than the speed limit? _____

Which car is traveling 50 miles per hour? _____

Complete the table.

Bus Number	Leaves	Arrives	Number of Hours Traveled
1			2
2	7:00	11:00	
3	4:00 P.M.	7:00 P.M.	
4	11:00 A.M.	5:00 P.M.	

SHARPENING YOUR SKILLS

Units 73, 74

Name:_____ **Class:**_____ **Date:**_____

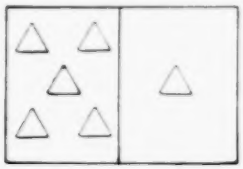
1. Henry used 20 pennies to buy 4 pretzels.

   The ratio of pennies to pretzels is _____ to _____.

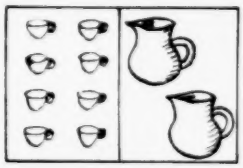
   Write the ratio as a fraction. _____

   What is the cost of 1 pretzel?_____

2. Write a ratio, in 2 ways, for each picture below.



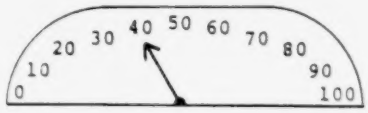
___ to ___



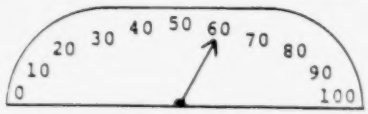
___ to ___

___ to ___

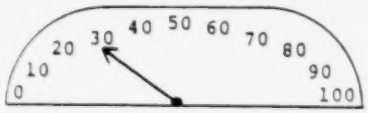
3. What is the rate of speed shown on each speedometer?



_____ mph

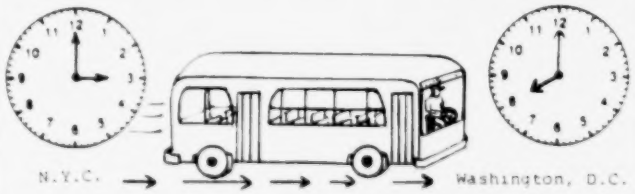


_____ mph



_____ mph

4. Keith's father drove a bus from New York City to Washington, D.C.



For how many hours did he travel?

_____ hours

5. If you ride your bicycle at a speed of 15 miles an hour for 2 hours, how far will you travel?

_____ miles